



**ACIDIC PRECIPITATION IN ONTARIO
STUDY - ANNUAL STATISTICS OF
CONCENTRATION AND DEPOSITION
DAILY PRECIPITATION AND AIR
MONITORING NETWORK, 1990**

JANUARY 1994

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ACIDIC PRECIPITATION IN ONTARIO STUDY
ANNUAL STATISTICS OF CONCENTRATION AND DEPOSITION
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JANUARY 1994



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ACIDIC PRECIPITATION IN ONTARIO STUDY
ANNUAL STATISTICS OF CONCENTRATION AND DEPOSITION
DAILY PRECIPITATION AND AIR MONITORING NETWORK, 1990

Report prepared by:

Special Studies and Research Management Unit
Atmospheric Research and Special Programs Section
Air Resources Branch

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PART I

INTRODUCTION

INTRODUCTION

The statistical summaries presented in this report pertain to the 1990 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) cumulative precipitation monitoring network. The relevant data can be obtained on request from the Air Resources Branch of The Ministry of Environment and Energy. All available data are utilized in the calculations except results reported as being unreliable (i.e., results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedures is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration, or when the sample cannot be re-analyzed to confirm the reported value). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. Reported results for metals which have missing leachate analysis are also excluded from statistical analysis. Results labelled as <W are replaced by "zero". W is the level which the analytical technique cannot distinguish from zero. Prior to 1986, if a level was recorded less than the detection limit T, a value corresponding to one half the detection limit was utilized for statistical calculations as reported in the statistical summaries. These values are no longer halved. Note that T is normally about ten times W, and values

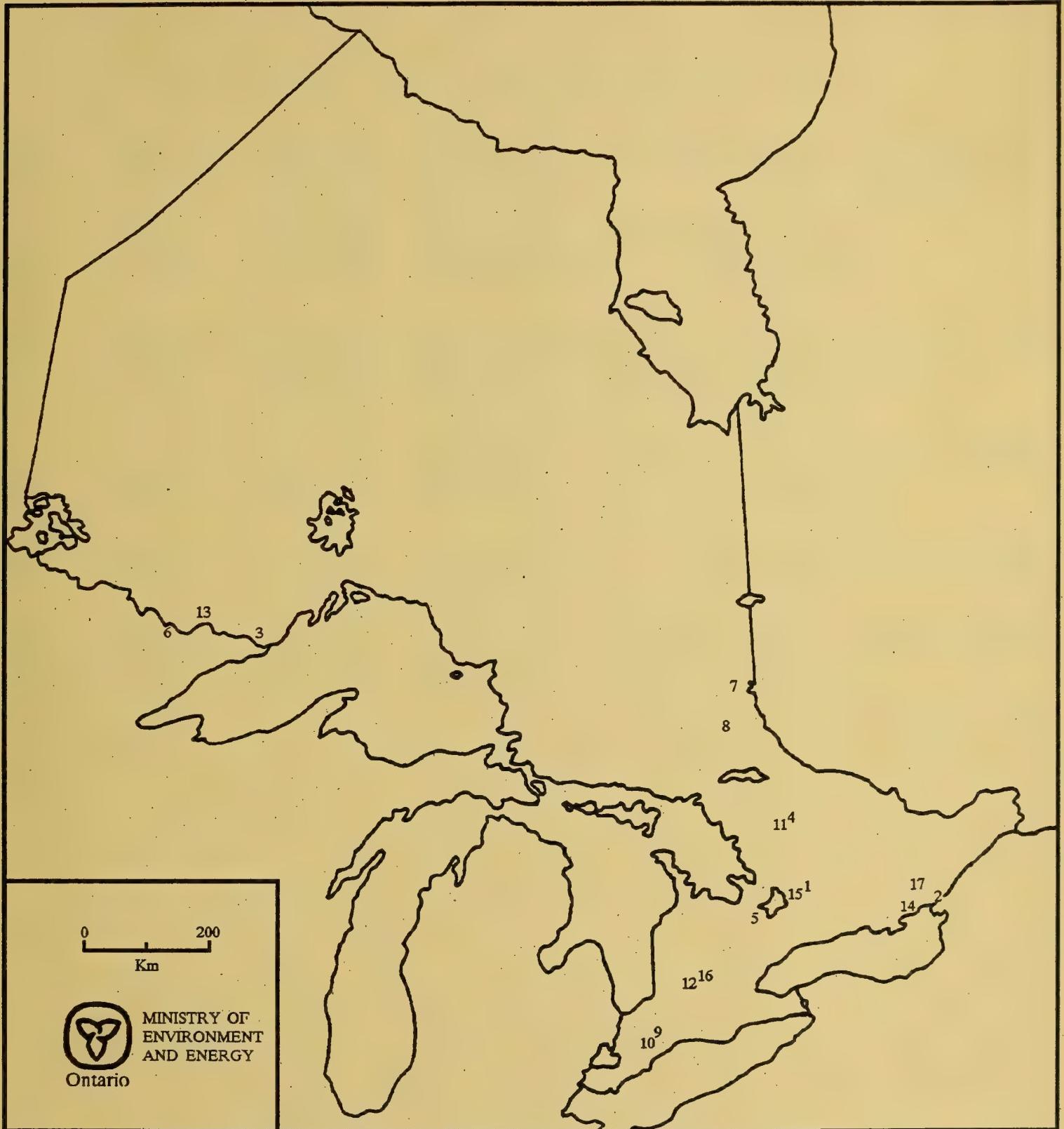
above the T criteria are considered to be precise and accurate. The reported cumulative precipitation gauge depth (or an interpolated value from Environment Canada's Climate data) is utilized in the calculation of deposition. If a precipitation gauge value is not available, then the collected sample volume is converted to its equivalent precipitation depth and is used in the deposition calculation.

In the air concentration statistical summaries. "Nitric" represents "Nitric Acid" and "Total Nitrate" represents total nitrates calculated by the summation of particulate "Nitrate" and "Nitric Acid". The air filter measurement for sulphur dioxide includes a contribution for nylon-filter impregnated SO₄. In these reports the sulphur on nylon filters is interpreted as sulphur dioxide. However, it is possible that organic sulphur compounds also contribute to this loading. Methods do not currently exist to quantify this contribution in routine network operation.

The statistical summaries presented in Parts III to VI include number of samples, mean (arithmetic/geometric), standard deviation, maximum, minimum, quartiles and precipitation weighted means using precipitation gauge depths where appropriate.

PART II

STATION LOCATION



- | | | |
|----------------------|--------------------|--------------------|
| 1. BALSAM LAKE * | 7. GOWGANDA * | 13. QUETICO CENTRE |
| 2. CHARLESTON LAKE * | 8. HIGH FALLS * | 14. RAILTON |
| 3. DAWSON | 9. LONGWOODS * | 15. RAVEN LAKE |
| 4. DORSET * | 10. MELBOURNE | 16. WELLESLEY * |
| 5. EGBERT * | 11. NITHGROVE | 17. WILMER |
| 6. FERNBERG * | 12. NORTH EASTHOPE | |

* Indicates both a wet and dry network site

APIOS DAILY PRECIPITATION AND AIR NETWORK SITES

<u>MOE REGION</u>	<u>STATION NAME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>NORTHING</u>	<u>EASTING</u>
Southwestern	Longwood	42°53'03"	81°28'50"	4747849	460756
	Melbourne	42°47'12"	81°33'27"	4737061	454401
	North Easthope	43°24'22"	80°53'45"	4805705	508434
	Wellesley	43°28'05"	80°45'33"	4812606	519481
	Egbert	44°13'57"	79°46'53"	4898202	597322
Central	Dorset	45°13'26"	78°55'52"	5009650	662400
	Nithgrove	45°12'03"	78°04'12"	5009221	730127
	Balsam Lake	44°37'45"	78°51'22"	4943776	670063
	Raven Lake	44°36'40"	78°54'43"	4941655	665686
Southeastern	Charleston Lake	44°29'50"	76°02'40"	4927414	416963
	Railton	44°22'34"	74°34'45"	4913518	533527
	Wilmer	44°26'23"	76°31'50"	4921637	378195
Northeastern	Gowganda	47°39'04"	80°46'32"	5277329	516647
	High Falls	46°22'55"	81°32'43"	5136412	458068
Northwestern	Fernberg	47°56'51"	91°29'26"	5311349	612714
	Quetico Centre	48°24'44"	91°12'08"	5363461	633036
	Dawson	48°33'38"	89°38'60"	5381779	304475
Out of Prov.	Penn State	40°47'18"	77°56'47"	4519229	251390

PART III

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: LONGWOODS AEROCHEM SITE NO. 1

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: MELBOURNE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L	ACIDITY GRAN UG/L
# OF SAMPLES	49	49	49	49	49	49	49	49	49
MAXIMUM	56.0	126.00	5.24	7.28	9.73	3.47	4.37	229.09	301.00
MINIMUM	0.0	5.00	3.03	3.64	0.45	0.17	0.00	0.05	18.70
ARITH. MEAN	7.4	34.62	3.58	4.46	3.50	0.84	0.49	58.50	83.88
ARITH. STD. DEV.	9.6	23.75	0.42	0.68	2.33	0.62	0.77	45.58	55.20
GEOM. MEAN	3.9	27.66	3.56	4.42	2.74	0.66	0.28	34.46	70.13
1ST QUARTILE	1.8	18.50	3.31	4.11	1.75	0.39	0.11	27.54	45.30
2ND QUARTILE	4.8	29.00	3.52	4.37	2.75	0.60	0.21	42.66	71.70
3RD QUARTILE	7.4	47.00	3.72	4.56	5.55	1.09	0.63	77.62	114.00
VOL. WGT. MEAN	7.4	27.41	4	15	2.62	0.57	0.35	46.24	69.72
MISSING VALUES	0			8	4	4	8	12	8
CHLORIDE MG/L	49	49	49	49	49	49	49	49	49
MAGNESIUM MG/L	1.62	0.667	4.745	0.653	2.120	2.120	2.120	2.120	2.120
MINIMUM	0.03	0.000	0.000	0.000	0.076	0.076	0.076	0.076	0.076
ARITH. MEAN	0.29	0.077	0.169	0.098	0.604	0.604	0.604	0.604	0.604
ARITH. STD. DEV.	0.30	0.119	0.728	0.113	0.452	0.452	0.452	0.452	0.452
GEOM. MEAN	0.20	0.055	0.062	0.087	0.458	0.458	0.458	0.458	0.458
1ST QUARTILE	0.10	0.015	0.015	0.040	0.270	0.270	0.270	0.270	0.270
2ND QUARTILE	0.20	0.035	0.035	0.070	0.470	0.470	0.470	0.470	0.470
3RD QUARTILE	0.38	0.095	0.070	0.110	0.804	0.804	0.804	0.804	0.804
VOL. WGT. MEAN	0.17	0.057	0.072	0.068	0.381	0.381	0.381	0.381	0.381
MISSING VALUES	4	8	8	8	4	4	8	12	8

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: NORTH EASTHOPE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB. PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	148	148	148	148	148	148	148
MAXIMUM	33.6	126.00	6.47	7.22	36.00	8.40	11.20
MINIMUM	0.0	2.00	3.00	3.66	0.30	0.00	0.00
ARITH. MEAN	6.9	28.89	4.07	4.94	3.63	0.73	0.68
ARITH. STD. DEV.	7.5	23.25	0.72	0.95	3.99	0.84	1.47
GEOM. MEAN	3.6	21.49	4.01	4.86	2.59	0.53	0.31
1ST QUARTILE	1.4	12.50	3.54	4.28	1.45	0.27	0.09
2ND QUARTILE	3.6	23.00	3.99	4.56	2.50	0.51	0.26
3RD QUARTILE	8.9	36.00	4.42	5.52	4.20	0.98	0.67
VOL. WGT. MEAN	25.07	8	56	16	2.69	0.48	0.35
MISSING VALUES	0				9	10	21
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	148	148	148	148	148	148	148
MAXIMUM	2.40	2.700	3.400	1.620	11.720	288.00	218.78
MINIMUM	0.02	0.000	0.000	0.000	0.000	5.49	0.06
ARITH. MEAN	0.30	0.138	0.125	0.131	0.844	60.68	38.48
ARITH. STD. DEV.	0.36	0.297	0.428	0.235	1.395	46.32	43.18
GEOM. MEAN	0.19	0.068	0.049	0.105	0.522	46.63	11.48
1ST QUARTILE	0.09	0.015	0.020	0.025	0.264	27.70	2.84
2ND QUARTILE	0.17	0.058	0.035	0.060	0.476	50.60	27.54
3RD QUARTILE	0.36	0.150	0.080	0.130	0.942	73.40	51.29
VOL. WGT. MEAN	0.16	0.072	0.045	0.078	0.433	62.26	40.24
MISSING VALUES	0.10	20	19	18	7	21	16

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: WELLESLEY AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L	ACIDITY GRAN UG/L
# OF SAMPLES	:	54	54	54	54	54	54	54	54
MAXIMUM	:	32.5	77.50	6.11	7.22	12.15	2.01	3.94	3.94
MINIMUM	:	0.1	3.00	2.78	3.91	0.20	0.14	0.02	0.02
ARITH. MEAN	:	6.3	27.69	3.81	4.97	3.32	0.76	0.68	0.68
ARITH. STD. DEV.	:	6.8	18.20	0.66	0.96	2.24	0.49	0.92	0.92
GEOM. MEAN	:	3.1	21.62	3.76	4.88	2.65	0.61	0.30	0.30
1ST QUARTILE	:	1.2	12.00	3.41	4.27	1.75	0.36	0.10	0.10
2ND QUARTILE	:	3.6	24.50	3.70	4.54	2.60	0.61	0.32	0.32
3RD QUARTILE	:	9.8	36.50	3.94	5.64	4.35	1.06	0.82	0.82
VOL. WGT. MEAN	:	26.24	22	2.22	2.68	0.59	0.31	0.31	0.31
MISSING VALUES	:	0	0	3	3	8	8	8	8
# OF SAMPLES	:	54	54	54	54	54	54	54	54
MAXIMUM	:	2.35	0.735	0.355	1.083	4.743	186.00	123.03	123.03
MINIMUM	:	0.01	0.000	0.000	0.000	0.134	0.70	0.06	0.06
ARITH. MEAN	:	0.28	0.134	0.046	0.126	0.881	59.35	35.25	35.25
ARITH. STD. DEV.	:	0.35	0.175	0.060	0.186	0.874	44.35	35.00	35.00
GEOM. MEAN	:	0.18	0.075	0.033	0.078	0.644	41.25	10.79	10.79
1ST QUARTILE	:	0.09	0.025	0.015	0.020	0.382	21.50	2.29	2.29
2ND QUARTILE	:	0.20	0.060	0.020	0.058	0.639	49.90	28.84	28.84
3RD QUARTILE	:	0.35	0.155	0.055	0.155	0.850	81.60	53.70	53.70
VOL. WGT. MEAN	:	0.16	0.064	0.045	0.060	0.599	40.14	40.14	40.14
MISSING VALUES	:	3	8	8	8	8	8	8	8

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: EGBERT AEROCHEM SITE NO. 1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	89	89	89	89	89	89	89
MAXIMUM	50.0	123.00	6.87	7.19	10.38	2.33	2.29
MINIMUM	0.0	2.00	3.65	3.22	0.15	0.08	0.00
ARITH. MEAN	3.9	28.72	4.54	4.55	2.51	0.59	0.33
ARITH. STD. DEV.	7.0	24.03	0.62	0.68	2.16	0.44	0.43
GEOM. MEAN	2.0	21.36	4.50	4.51	1.80	0.45	0.21
1ST QUARTILE	0.4	13.00	4.23	4.22	1.18	0.28	0.07
2ND QUARTILE	1.4	24.00	4.39	4.41	1.95	0.45	0.21
3RD QUARTILE	4.2	32.00	4.59	4.65	3.00	0.78	0.38
VOL. WGT. MEAN	24.75	24.75	22	27	2.14	0.44	0.22
MISSING VALUES	0				22	27	
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	89	89	89	89	89	89	89
MAXIMUM	1.75	0.429	0.320	0.560	5.150	214.00	609.40
MINIMUM	0.02	0.000	0.000	0.000	0.000	4.45	0.06
ARITH. MEAN	0.26	0.051	0.038	0.094	0.541	67.32	56.30
ARITH. STD. DEV.	0.32	0.077	0.057	0.108	0.792	44.68	81.19
GEOM. MEAN	0.16	0.051	0.034	0.078	0.275	54.44	27.87
1ST QUARTILE	0.09	0.010	0.010	0.030	0.128	37.80	22.39
2ND QUARTILE	0.14	0.028	0.020	0.055	0.238	56.15	38.91
3RD QUARTILE	0.29	0.057	0.040	0.110	0.683	81.50	60.26
VOL. WGT. MEAN	0.12	0.035	0.030	0.057	0.336	58.63	44.60
MISSING VALUES	22	27	26	26	18	31	27

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: DORSET AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	204	204	204	204	204	204	204
MAXIMUM	:	41.6	150.00	6.88	7.21	39.25	2.63	6.29
MINIMUM	:	0.0	2.50	3.43	0.00	0.00	0.00	0.00
ARITH. MEAN	:	5.1	26.21	4.40	4.56	2.76	0.65	0.33
ARITH. STD. DEV.	:	6.6	21.65	0.41	0.57	3.59	0.56	0.69
GEOM. MEAN	:	2.4	19.20	4.39	4.53	1.82	0.43	0.19
1ST QUARTILE	:	0.5	11.00	4.16	4.18	0.95	0.23	0.05
2ND QUARTILE	:	2.5	21.00	4.37	4.45	1.80	0.48	0.13
3RD QUARTILE	:	7.0	34.50	4.56	4.82	3.70	0.95	0.34
VOL. WGT. MEAN	:		23.16	4.7	94	2.13	0.46	0.19
MISSING VALUES	:	0			53	38	53	53
<hr/>								
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L	
# OF SAMPLES	:	204	204	204	204	204	204	204
MAXIMUM	:	1.68	1.471	0.795	1.000	2.450	835.00	645.65
MINIMUM	:	0.00	0.000	0.000	0.000	0.000	9.64	0.06
ARITH. MEAN	:	0.21	0.060	0.068	0.097	0.434	77.66	49.85
ARITH. STD. DEV.	:	0.24	0.156	0.104	0.146	0.501	84.70	66.13
GEOM. MEAN	:	0.14	0.069	0.047	0.081	0.246	59.15	27.56
1ST QUARTILE	:	0.06	0.005	0.015	0.020	0.094	38.50	15.02
2ND QUARTILE	:	0.14	0.020	0.032	0.050	0.243	57.00	35.48
3RD QUARTILE	:	0.28	0.055	0.065	0.105	0.544	93.10	66.07
VOL. WGT. MEAN	:	0.12	0.035	0.040	0.055	0.299	42.79	65.65
MISSING VALUES	:	34	53	52	51	32	65	53

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: NITHGROVE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	57	57	57	57	57	57	57
MAXIMUM	30.4	100.00	5.73	5.90	14.29	2.86	1.79
MINIMUM	0.0	4.00	4.01	3.09	0.40	0.04	0.00
ARITH. MEAN	5.3	29.02	4.44	4.56	2.83	0.69	0.29
ARITH. STD. DEV.	6.3	24.20	0.36	0.58	2.80	0.57	0.37
GEOM. MEAN	2.8	21.49	4.43	4.52	2.00	0.50	0.20
1ST QUARTILE	0.4	14.50	4.25	4.27	1.30	0.29	0.06
2ND QUARTILE	2.8	23.50	4.32	4.47	2.00	0.55	0.15
3RD QUARTILE	8.2	33.00	4.51	4.70	3.30	0.87	0.34
VOL. WGT. MEAN	0	23.67	9	24	12	0.55	0.21
MISSING VALUES						9	17
# OF SAMPLES	57	57	57	57	57	57	57
MAXIMUM	2.23	0.245	0.220	0.430	3.086	957.14	805.25
MINIMUM	0.00	0.000	0.010	0.000	0.000	12.30	1.26
ARITH. MEAN	0.26	0.042	0.064	0.091	0.491	87.38	61.46
ARITH. STD. DEV.	0.37	0.054	0.048	0.095	0.616	143.31	120.01
GEOM. MEAN	0.17	0.058	0.049	0.067	0.271	57.40	27.69
1ST QUARTILE	0.10	0.010	0.030	0.030	0.080	37.60	19.95
2ND QUARTILE	0.14	0.023	0.040	0.055	0.300	48.90	33.88
3RD QUARTILE	0.23	0.045	0.085	0.100	0.566	76.70	53.70
VOL. WGT. MEAN	0.16	0.038	0.041	0.054	0.342	57.63	39.51
MISSING VALUES						9	14

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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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STATION: BALSAM LAKE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	:	41	41	41	41	41	41
MAXIMUM	:	35.0	118.00	6.25	8.50	10.01	1.80
MINIMUM	:	0.0	3.00	3.49	0.15	0.00	0.00
ARITH. MEAN	:	6.4	31.04	4.31	2.83	0.86	0.45
ARITH. STD. DEV.	:	7.4	22.93	0.62	1.82	1.55	0.48
GEOM. MEAN	:	2.7	23.75	4.27	2.24	0.56	0.26
1ST QUARTILE	:	1.1	14.00	3.95	1.40	0.26	0.10
2ND QUARTILE	:	3.4	24.25	4.14	2.68	0.64	0.23
3RD QUARTILE	:	9.2	45.00	4.41	3.70	0.95	0.61
VOL. WGT. MEAN	:	24.67	24.67	4.64	2.35	0.55	0.32
MISSING VALUES	:	0	3	10	6	3	5
CHLORIDE MG/L		MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	41	41	41	41	41	41
MAXIMUM	:	0.98	0.315	0.110	0.580	1.050	208.93
MINIMUM	:	0.00	0.000	0.000	0.000	10.90	0.28
ARITH. MEAN	:	0.22	0.050	0.028	0.084	0.428	74.26
ARITH. STD. DEV.	:	0.22	0.065	0.028	0.120	0.345	48.42
GEOM. MEAN	:	0.14	0.055	0.045	0.120	0.319	50.90
1ST QUARTILE	:	0.05	0.010	0.010	0.010	0.136	41.72
2ND QUARTILE	:	0.16	0.028	0.020	0.048	0.297	59.42
3RD QUARTILE	:	0.29	0.060	0.030	0.095	0.784	22.51
VOL. WGT. MEAN	:	0.12	0.066	0.028	0.093	0.361	40.40
MISSING VALUES	:	3	5	5	5	5	6

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STATION: RAVEN LAKE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	:	200	200	200	200	200	200
MAXIMUM	:	32.4	118.00	7.73	26.35	4.09	4.53
MINIMUM	:	0.0	2.00	3.08	0.00	0.00	0.00
ARITH. MEAN	:	4.9	25.23	4.36	2.60	0.62	0.47
ARITH. STD. DEV.	:	6.2	21.64	0.54	0.76	0.59	0.74
GEOM. MEAN	:	2.5	17.80	4.33	4.60	1.78	0.43
1ST QUARTILE	:	0.5	9.50	4.03	4.16	0.90	0.25
2ND QUARTILE	:	2.5	19.50	4.29	4.45	1.88	0.41
3RD QUARTILE	:	7.2	32.50	4.63	4.86	3.38	0.85
VOL. WGT. MEAN	:	0	23.82	60	102	2.30	0.47
MISSING VALUES						0.54	0.57
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	200	200	200	200	200	200
MAXIMUM	:	1.64	0.820	1.260	0.484	6.800	831.76
MINIMUM	:	0.00	0.000	0.000	0.000	0.00	0.02
ARITH. MEAN	:	0.21	0.057	0.055	0.083	0.500	54.48
ARITH. STD. DEV.	:	0.25	0.100	0.121	0.110	0.803	92.27
GEOM. MEAN	:	0.13	0.074	0.045	0.094	0.245	53.31
1ST QUARTILE	:	0.06	0.005	0.015	0.020	0.106	29.10
2ND QUARTILE	:	0.12	0.020	0.025	0.045	0.228	55.90
3RD QUARTILE	:	0.27	0.065	0.050	0.090	0.598	82.60
VOL. WGT. MEAN	:	0.13	0.051	0.039	0.062	0.357	66.59
MISSING VALUES		53	56	56	56	43	53

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STATION: CHARLESTON LAKE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	127	127	127	127	19.05	3.66	4.31	127
MAXIMUM	58.1	162.00	5.25	9.37	0.10	0.00	0.00	
MINIMUM	0.0	3.00	3.58	3.59	3.39	0.70	0.32	
ARITH. MEAN	8.1	37.04	4.24	4.41	0.66	0.57	0.55	
ARITH. STD. DEV.	9.0	26.97	0.34	0.66	2.90	0.57	0.55	
GEOM. MEAN	4.9	27.89	4.22	4.37	2.43	0.53	0.19	
1ST QUARTILE	2.3	17.00	3.98	4.06	1.55	0.28	0.04	
2ND QUARTILE	4.7	30.00	4.22	4.27	2.65	0.55	0.11	
3RD QUARTILE	11.3	50.00	4.46	4.53	4.10	0.92	0.36	
VOL. WGT. MEAN	0	28.22	4	53	2.54	0.47	0.16	
MISSING VALUES					4	3	4	
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	127	127	127	127	127	127	127	127
MAXIMUM	1.64	0.605	0.735	0.630	2.240	338.00	257.04	
MINIMUM	0.00	0.000	0.000	0.000	0.020	0.00	0.00	
ARITH. MEAN	0.17	0.056	0.038	0.059	0.470	88.88	63.71	
ARITH. STD. DEV.	0.24	0.091	0.072	0.091	0.449	59.05	47.99	
GEOM. MEAN	0.14	0.053	0.041	0.082	0.320	70.32	39.35	
1ST QUARTILE	0.05	0.010	0.010	0.010	0.178	49.00	29.51	
2ND QUARTILE	0.11	0.020	0.020	0.030	0.290	74.60	53.70	
3RD QUARTILE	0.20	0.065	0.040	0.065	0.596	113.00	87.10	
VOL. WGT. MEAN	0.14	0.032	0.036	0.066	0.314	177.46	50.91	
MISSING VALUES	2	3	4	4	0	7	5	

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STATION: RAILTON AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	:	37	37	37	37	37	37
MAXIMUM	:	35.0	95.00	6.27	7.15	2.05	4.62
MINIMUM	:	0.0	3.50	3.78	3.76	0.06	0.00
ARITH. MEAN	:	8.5	37.29	4.55	4.71	0.12	0.76
ARITH. STD. DEV.	:	7.2	22.65	0.71	0.88	0.54	0.93
GEOM. MEAN	:	5.9	30.07	4.50	4.64	0.58	0.42
1ST QUARTILE	:	2.8	19.50	4.15	4.19	0.40	0.18
2ND QUARTILE	:	6.3	33.00	4.29	4.35	0.62	0.38
3RD QUARTILE	:	12.9	50.50	4.68	5.00	4.20	1.05
VOL. WGT. MEAN	:	0	33.30	1.9	2.75	0.67	0.57
MISSING VALUES	:	0	1	3	2	2	2
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	37	37	37	37	37	37
MAXIMUM	:	1.54	0.375	1.730	3.550	3.600	196.00
MINIMUM	:	0.01	0.000	0.015	0.010	0.056	9.64
ARITH. MEAN	:	0.30	0.090	0.120	0.257	0.622	48.43
ARITH. STD. DEV.	:	0.32	0.095	0.285	0.629	0.615	49.02
GEOM. MEAN	:	0.19	0.091	0.055	0.087	0.446	61.94
1ST QUARTILE	:	0.10	0.025	0.025	0.030	0.262	43.00
2ND QUARTILE	:	0.20	0.040	0.045	0.100	0.448	68.95
3RD QUARTILE	:	0.39	0.115	0.100	0.200	0.712	100.00
VOL. WGT. MEAN	:	0.21	0.084	0.061	0.130	0.445	76.55
MISSING VALUES	:	2	2	2	2	2	3

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STATION: WILMER AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	184	184	184	184	184	184	184
MAXIMUM	60.4	146.00	5.34	6.32	17.50	2.00	1.86	229.09
MINIMUM	0.0	4.00	3.53	3.64	0.25	0.00	0.00	0.48
ARITH. MEAN	5.7	33.51	4.22	4.32	3.10	0.61	0.22	63.95
ARITH. STD. DEV.	8.0	24.79	0.31	0.40	2.40	0.44	0.31	44.07
GEOM. MEAN	2.3	25.92	4.21	4.30	2.37	0.49	0.18	48.02
1ST QUARTILE	0.6	15.50	4.03	4.09	1.40	0.24	0.05	33.11
2ND QUARTILE	2.5	28.00	4.21	4.28	2.60	0.52	0.11	82.45
3RD QUARTILE	7.6	43.00	4.37	4.46	4.40	0.87	0.26	79.43
VOL. WGT. MEAN	0	26.57	57	60	2.41	0.45	0.16	52.30
MISSING VALUES	0	103	57	53	53	53	64	64
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	:	184	184	184	184	184	184	184
MAXIMUM	0.94	0.315	1.000	0.350	2.750	0.300	337.00	337.00
MINIMUM	0.00	0.000	0.000	0.000	0.000	0.000	13.20	13.20
ARITH. MEAN	0.16	0.032	0.042	0.045	0.426	0.156	95.05	95.05
ARITH. STD. DEV.	0.17	0.048	0.099	0.056	0.403	0.295	61.07	61.07
GEOM. MEAN	0.11	0.047	0.042	0.086	0.300	0.100	79.40	79.40
1ST QUARTILE	0.04	0.005	0.010	0.010	0.156	0.025	54.70	54.70
2ND QUARTILE	0.10	0.020	0.020	0.025	0.295	0.060	82.45	82.45
3RD QUARTILE	0.21	0.040	0.040	0.060	0.538	0.053	113.00	113.00
VOL. WGT. MEAN	0.11	0.029	0.033	0.053	0.278	0.053	80.66	80.66
MISSING VALUES	0	52	62	61	48	61	64	64

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STATION: GONGANDA AEROCHEM SITE NO.1

EQUIVALENT PREC. DEPTH MM.	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	FREEH LAB UG/L	CALCIUM MG/L
							# OF SAMPLES
59	59	59	59	10.80	2.00	1.60	59
55.1	98.00	7.09	5.34	0.05	0.02	0.00	MAXIMUM
0.0	2.50	3.72	3.77	2.21	0.42	0.27	MINIMUM
4.2	19.58	4.57	4.60	2.01	0.42	0.32	ARITH. MEAN
8.4	18.67	0.68	0.39	1.41	0.25	0.19	STD. DEV.
1.4	13.63	4.53	4.59	0.80	0.11	0.08	GEOM. MEAN
0.2	8.00	4.19	4.31	1.75	0.36	0.17	1ST QUARTILE
1.2	13.75	4.40	4.63	3.15	0.61	0.30	2ND QUARTILE
3.6	24.50	4.73	4.78	1.42	0.27	0.14	3RD QUARTILE
0	15.11	40	31	16	16	21	VOL. WGT. MEAN
MISSING VALUES							
CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH LAB UG/L	CALCIUM MG/L
59	59	59	59	59	59	59	59
3.38	0.295	1.095	2.578	1.340	222.00	169.82	MAXIMUM
0.00	0.000	0.005	0.000	0.000	3.99	4.55	MINIMUM
0.39	0.053	0.182	0.260	0.226	60.23	36.12	ARITH. MEAN
0.66	0.066	0.265	0.521	0.289	40.14	33.68	STD. DEV.
0.21	0.057	0.079	0.133	0.192	48.70	24.85	GEOM. MEAN
0.11	0.014	0.030	0.045	0.014	35.70	12.02	1ST QUARTILE
0.19	0.030	0.070	0.100	0.113	48.20	23.73	2ND QUARTILE
0.37	0.055	0.152	0.225	0.338	74.60	48.98	3RD QUARTILE
0.15	0.033	0.051	0.113	0.161	46.43	27.13	VOL. WGT. MEAN
MISSING VALUES							
22	20	22	20	20	26	15	31

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STATION: HIGH FALLS AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB. PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	60	60	60	60	60	60	60
MAXIMUM	:	37.6	100.00	6.15	6.55	11.86	1.67	3.74
MINIMUM	:	0.0	2.00	3.87	0.10	0.02	0.00	0.00
ARITH. MEAN	:	4.3	26.05	4.55	4.55	2.38	0.62	0.40
ARITH. STD. DEV.	:	7.0	19.38	0.47	0.49	2.32	0.39	0.65
GEOM. MEAN	:	2.1	20.15	4.53	4.53	1.54	0.46	0.25
1ST QUARTILE	:	0.0	15.00	4.28	4.28	0.78	0.36	0.08
2ND QUARTILE	:	1.3	20.50	4.43	4.45	1.60	0.56	0.21
3RD QUARTILE	:	4.6	32.00	4.72	4.78	3.20	0.83	0.52
VOL. WGT. MEAN	:	0	21.19	1.94	1.94	0.46	0.33	0.22
MISSING VALUES	:	0	17	19	16	17	18	19
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		MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	:	60	60	60	60	60	60	60
MAXIMUM	:	0.66	0.652	0.418	0.545	1.768	184.00	134.90
MINIMUM	:	0.00	0.000	0.005	0.000	0.000	18.10	0.28
ARITH. MEAN	:	0.19	0.063	0.066	0.125	0.416	63.75	41.58
ARITH. STD. DEV.	:	0.18	0.106	0.076	0.127	0.420	35.44	30.85
GEOM. MEAN	:	0.15	0.092	0.041	0.091	0.285	55.17	28.02
1ST QUARTILE	:	0.07	0.010	0.025	0.035	0.102	40.00	16.60
2ND QUARTILE	:	0.11	0.033	0.043	0.075	0.238	60.30	35.48
3RD QUARTILE	:	0.28	0.065	0.080	0.200	0.612	73.90	52.48
VOL. WGT. MEAN	:	0.11	0.063	0.035	0.070	0.349	57.00	33.48
MISSING VALUES	:	0	16	18	18	15	22	19

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STATION: FERNBERG AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	156	156	156	156	156	156	156
MAXIMUM	40.6	65.90	7.15	7.45	1.67	2.76	2.76
MINIMUM	0.0	1.00	4.04	0.00	0.03	0.00	0.00
ARITH. MEAN	4.1	12.16	5.45	1.47	0.38	0.34	0.34
ARITH. STD. DEV.	6.2	10.43	0.79	1.37	0.30	0.45	0.45
GEOM. MEAN	1.5	8.98	5.39	1.01	0.29	0.25	0.25
1ST QUARTILE	0.4	5.00	4.82	0.55	0.18	0.08	0.08
2ND QUARTILE	1.2	8.50	5.38	1.00	0.31	0.17	0.17
3RD QUARTILE	5.4	17.00	5.97	2.05	0.52	0.38	0.38
VOL. WGT. MEAN	9.41	0	1.10	0.27	0.25	0.25	0.25
MISSING VALUES	0	60	156	57	58	56	56
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	156	156	156	156	156	156	156
MAXIMUM	0.84	0.735	0.505	0.445	1.840	178.55	91.20
MINIMUM	0.00	0.000	0.000	0.000	0.000	10.10	0.07
ARITH. MEAN	0.12	0.062	0.060	0.071	0.405	35.00	11.38
ARITH. STD. DEV.	0.13	0.104	0.075	0.091	0.399	26.44	15.75
GEOM. MEAN	0.10	0.058	0.043	0.075	0.289	29.42	3.54
1ST QUARTILE	0.04	0.010	0.015	0.020	0.100	20.80	1.07
2ND QUARTILE	0.08	0.033	0.035	0.047	0.299	23.80	4.17
3RD QUARTILE	0.16	0.065	0.075	0.075	0.568	39.64	15.14
VOL. WGT. MEAN	0.08	0.046	0.044	0.055	0.373	28.47	8.42
MISSING VALUES	0	56	56	56	46	65	57

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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: QUETICO CENTRE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB. PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	29	29	29	29	29	29	29	29
MAXIMUM	19.0	21.50	6.72	2.35	0.46	0.46	0.76	35.48
MINIMUM	0.0	2.50	4.45	0.10	0.03	0.03	0.00	0.19
ARITH. MEAN	5.9	9.04	5.43	0.94	0.23	0.23	0.18	8.95
ARITH. STD. DEV.	5.0	5.30	0.68	0.65	0.11	0.11	0.18	9.99
GEOM. MEAN	3.0	7.69	5.39	0.73	0.20	0.20	0.16	3.74
1ST QUARTILE	2.3	5.00	4.82	0.50	0.17	0.17	0.04	1.41
2ND QUARTILE	4.2	7.75	5.44	0.65	0.21	0.21	0.13	3.68
3RD QUARTILE	9.6	12.00	5.85	1.35	0.28	0.28	0.23	15.14
VOL. WGT. MEAN	8.44	7	0.78	0.20	0.17	0.17	0.17	7.19
MISSING VALUES	0	7	7	7	7	7	7	7
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	29	29	29	29	29	29	29	29
MAXIMUM	0.35	0.140	0.430	0.546	981.00	981.00	35.48	35.48
MINIMUM	0.00	0.000	0.000	0.024	7.60	7.60	0.19	0.19
ARITH. MEAN	0.08	0.028	0.054	0.222	97.10	97.10	8.95	8.95
ARITH. STD. DEV.	0.08	0.031	0.087	0.142	238.23	238.23	9.99	9.99
GEOM. MEAN	0.06	0.037	0.073	0.174	27.89	27.89	3.74	3.74
1ST QUARTILE	0.01	0.005	0.010	0.124	15.90	15.90	1.41	1.41
2ND QUARTILE	0.06	0.020	0.035	0.170	19.80	19.80	3.68	3.68
3RD QUARTILE	0.09	0.030	0.060	0.316	28.10	28.10	15.14	15.14
VOL. WGT. MEAN	0.06	0.031	0.044	0.211	89.25	89.25	7.19	7.19
MISSING VALUES	0	7	7	7	7	7	7	7

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: DAWSON AEROCHEM SITE NO. 1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	:	29	29	29	29	29	29
MAXIMUM	:	25.0	25.50	6.73	2.50	0.62	0.65
MINIMUM	:	0.0	2.50	4.33	0.25	0.09	0.03
ARITH. MEAN	:	5.7	9.88	5.23	1.11	0.32	0.22
ARITH. STD. DEV.	:	6.5	5.86	0.64	0.71	0.15	0.19
GEOM. MEAN	:	2.3	8.41	5.20	0.91	0.28	0.15
1ST QUARTILE	:	0.2	5.50	4.74	0.55	0.16	0.06
2ND QUARTILE	:	4.2	8.50	5.12	0.95	0.30	0.13
3RD QUARTILE	:	8.2	11.50	5.34	1.05	0.41	0.34
VOL. WGT. MEAN	:	11.38	11.38	13	1.28	0.30	0.18
MISSING VALUES	:	0	0	0	0	0	0
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	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	29	29	29	29	29	29
MAXIMUM	:	0.42	0.125	0.100	0.320	73.00	46.77
MINIMUM	:	0.01	0.00	0.000	0.015	15.40	0.19
ARITH. MEAN	:	0.13	0.034	0.031	0.101	29.59	11.77
ARITH. STD. DEV.	:	0.11	0.032	0.028	0.084	13.47	11.96
GEOM. MEAN	:	0.09	0.031	0.031	0.073	27.33	5.84
1ST QUARTILE	:	0.05	0.010	0.010	0.035	21.50	2.57
2ND QUARTILE	:	0.09	0.025	0.025	0.073	26.60	7.59
3RD QUARTILE	:	0.15	0.040	0.030	0.125	30.90	14.79
VOL. WGT. MEAN	:	0.12	0.031	0.026	0.090	34.59	15.67
MISSING VALUES	:	0	0	0	0	0	0
	13	13	13	13	13	13	13

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: PENN. STATE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	48	48	48	48	48	48	48
MAXIMUM	:	32.6	191.00	8.31	6.77	2.89	1.71	
MINIMUM	:	0.0	5.25	3.69	0.45	0.08	0.00	
ARITH. MEAN	:	5.5	40.57	4.30	2.88	0.75	0.24	
ARITH. STD. DEV.	:	7.5	30.66	0.72	1.74	0.53	0.40	
GEOM. MEAN	:	2.6	32.08	4.26	2.35	0.58	0.19	
1ST QUARTILE	:	0.6	21.00	3.98	1.55	0.40	0.05	
2ND QUARTILE	:	1.8	35.50	4.12	2.25	0.66	0.10	
3RD QUARTILE	:	7.0	54.00	4.40	3.80	1.02	0.22	
VOL. WGT. MEAN	:		29.78		2.32	0.46	0.15	
MISSING VALUES	:	0	6	10	3	3	8	
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# OF SAMPLES	:	48	48	48	48	48	48	48
MAXIMUM	:	1.44	0.360	0.544	0.435	1.510	574.00	206.49
MINIMUM	:	0.00	0.000	0.000	0.000	1.00	0.00	0.00
ARITH. MEAN	:	0.31	0.043	0.045	0.089	0.331	106.12	76.06
ARITH. STD. DEV.	:	0.30	0.077	0.091	0.112	0.296	91.89	45.71
GEOM. MEAN	:	0.29	0.067	0.072	0.103	0.238	78.11	49.86
1ST QUARTILE	:	0.13	0.005	0.005	0.015	0.162	61.70	39.81
2ND QUARTILE	:	0.23	0.015	0.020	0.060	0.230	88.20	75.36
3RD QUARTILE	:	0.40	0.040	0.045	0.095	0.428	135.00	104.71
VOL. WGT. MEAN	:	0.23	0.029	0.030	0.099	0.250	94.24	52.07
MISSING VALUES	:	3	7	7	3	3	13	13

PART IV

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY REGION

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: CE	EQUIVALENT PREC. DEPTH MM	CONDUCT UMH0/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES ::	550	550	550	550	550	550	550
MAXIMUM ::	41.6	191.00	6.88	8.31	39.25	10.01	6.29
MINIMUM ::	0.0	2.00	3.18	3.08	0.00	0.00	0.00
ARITH. MEAN ::	5.2	28.06	4.38	4.58	2.73	0.67	0.38
ARITH. STD. DEV. ::	6.6	23.53	0.48	0.68	2.98	0.71	0.65
GEOM. MEAN ::	2.5	20.34	4.36	4.53	1.91	0.46	0.21
1ST QUARTILE ::	0.6	11.50	4.08	4.16	1.10	0.25	0.05
2ND QUARTILE ::	2.5	22.50	4.32	4.41	1.94	0.48	0.15
3RD QUARTILE ::	7.5	37.00	4.55	4.78	3.55	0.93	0.42
VOL. WGT. MEAN ::	24.20	125	278	134	106	107	140
MISSING VALUES ::	0						
CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L	
# OF SAMPLES ::	550	550	550	550	550	550	550
MAXIMUM ::	2.23	1.471	1.260	1.000	6.800	1090.00	831.76
MINIMUM ::	0.00	0.000	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN ::	0.23	0.055	0.057	0.089	0.452	81.28	55.02
ARITH. STD. DEV. ::	0.27	0.117	0.101	0.124	0.612	104.55	80.93
GEOM. MEAN ::	0.15	0.068	0.048	0.089	0.253	58.25	26.40
1ST QUARTILE ::	0.06	0.005	0.015	0.020	0.108	36.10	16.60
2ND QUARTILE ::	0.14	0.020	0.030	0.050	0.254	58.00	38.90
3RD QUARTILE ::	0.29	0.055	0.055	0.100	0.566	93.90	69.18
VOL. WGT. MEAN ::	0.14	0.043	0.038	0.063	0.325	67.30	43.64
MISSING VALUES ::	102	138	137	136	90	159	134

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: NE

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB. PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	119	119	119	119	119	119	119
MAXIMUM	55.1	100.00	7.09	6.55	11.86	2.00	3.74	3.74
MINIMUM	0.0	2.00	3.72	3.77	0.05	0.02	0.00	0.00
ARITH. MEAN	4.2	23.29	4.56	4.57	2.30	0.52	0.34	0.34
ARITH. STD. DEV.	7.8	19.35	0.57	0.45	2.17	0.42	0.52	0.52
GEOM. MEAN	1.7	17.06	4.53	4.55	1.48	0.34	0.22	0.22
1ST QUARTILE	0.2	12.00	4.25	4.28	0.80	0.22	0.08	0.08
2ND QUARTILE	1.2	18.00	4.41	4.46	1.70	0.44	0.19	0.19
3RD QUARTILE	4.2	28.50	4.73	4.78	3.20	0.71	0.34	0.34
VOL. WGT. MEAN	19.09	19.09	4.44	4.44	1.69	0.37	0.23	0.23
MISSING VALUES	0	0	76	50	32	33	38	48
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	:	119	119	119	119	119	119	119
MAXIMUM	3.38	0.652	1.095	2.578	1.768	222.00	169.82	169.82
MINIMUM	0.00	0.000	0.005	0.000	0.000	3.99	0.28	0.28
ARITH. MEAN	0.29	0.058	0.120	0.190	0.322	62.12	39.37	39.37
ARITH. STD. DEV.	0.49	0.089	0.199	0.379	0.374	37.74	32.14	32.14
GEOM. MEAN	0.18	0.073	0.056	0.109	0.235	52.06	26.69	26.69
1ST QUARTILE	0.08	0.010	0.025	0.035	0.038	36.80	16.60	16.60
2ND QUARTILE	0.15	0.030	0.050	0.085	0.172	59.30	34.42	34.42
3RD QUARTILE	0.34	0.060	0.112	0.206	0.466	74.60	52.44	52.44
VOL. WGT. MEAN	0.13	0.048	0.043	0.090	0.261	51.92	31.34	31.34
MISSING VALUES	32	38	40	38	30	48	50	50

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: NW

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	214	214	214	214	214	214	214
MAXIMUM	40.6	65.90	7.00	7.15	7.45	1.67	2.76
MINIMUM	0.0	1.00	.	4.04	0.00	0.03	0.00
ARITH. MEAN	4.6	11.38	.	5.42	1.34	0.35	0.30
ARITH. STD. DEV.	6.2	9.39	.	0.76	1.23	0.27	0.40
GEOM. MEAN	1.8	8.69	.	5.37	0.95	0.27	0.22
1ST QUARTILE	0.4	5.39	.	4.82	0.50	0.18	0.07
2ND QUARTILE	2.1	8.50	.	5.31	0.95	0.27	0.16
3RD QUARTILE	7.0	15.50	.	5.93	1.65	0.47	0.38
VOL. WGT. MEAN	9.58	80	214	77	1.07	0.26	0.22
MISSING VALUES	0				78	76	
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	214	214	214	214	214	214	214
MAXIMUM	0.84	0.735	0.505	0.445	1.840	981.00	91.20
MINIMUM	0.00	0.000	0.000	0.000	0.000	7.60	0.07
ARITH. MEAN	0.11	0.053	0.050	0.072	0.366	44.92	11.04
ARITH. STD. DEV.	0.12	0.091	0.067	0.090	0.369	103.72	14.59
GEOM. MEAN	0.09	0.050	0.042	0.074	0.254	28.89	3.79
1ST QUARTILE	0.04	0.010	0.015	0.020	0.108	20.20	1.17
2ND QUARTILE	0.08	0.025	0.030	0.047	0.248	23.60	4.90
3RD QUARTILE	0.14	0.060	0.060	0.080	0.482	38.00	15.14
VOL. WGT. MEAN	0.08	0.040	0.038	0.061	0.330	41.26	9.49
MISSING VALUES	78	76	76	76	66	85	77

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION:	SE	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	348	348	348	348	348	348	348	348
MAXIMUM	60.4	162.00	6.27	9.37	19.05	3.66	4.62		
MINIMUM	0.0	3.00	3.53	3.59	0.06	0.00	0.00		
ARITH. MEAN	6.9	35.50	4.26	4.40	3.23	0.67	0.33		
ARITH. STD. DEV.	8.4	25.56	0.40	0.61	2.57	0.52	0.56		
GEOM. MEAN	3.4	27.25	4.25	4.37	2.40	0.52	0.21		
1ST QUARTILE	1.4	17.00	4.03	4.08	1.55	0.28	0.05		
2ND QUARTILE	3.6	29.50	4.21	4.28	2.60	0.56	0.13		
3RD QUARTILE	9.6	46.00	4.42	4.51	4.20	0.89	0.36		
VOL. WGT. MEAN		28.21		2.51		0.49	0.23		
MISSING VALUES		62		59		68	68		
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# OF SAMPLES	:	348	348	348	348	348	348	348	348
MAXIMUM	1.64	0.605	1.730	3.550	3.600	3.600	3.600	3.600	3.600
MINIMUM	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ARITH. MEAN	0.18	0.050	0.050	0.077	0.468	90.28	61.91		
ARITH. STD. DEV.	0.23	0.079	0.132	0.243	0.457	59.05	45.69		
GEOM. MEAN	0.13	0.054	0.043	0.084	0.324	73.00	39.46		
1ST QUARTILE	0.05	0.010	0.010	0.015	0.180	52.30	30.90		
2ND QUARTILE	0.11	0.020	0.025	0.030	0.300	78.60	52.48		
3RD QUARTILE	0.21	0.055	0.042	0.065	0.608	113.00	83.18		
VOL. WGT. MEAN	0.14	0.039	0.039	0.073	0.316	78.71	50.45		
MISSING VALUES		56	67	67	49	67	68		

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION:	SW	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD.PH	LAB.PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	:	453	453	453	453	453	453	453	453
MAXIMUM	:	56.0	126.00	6.87	7.40	36.00	8.40	11.20	609.40
MINIMUM	:	0.0	2.00	2.78	3.22	0.15	0.00	0.00	0.04
ARITH. MEAN	:	7.0	29.21	4.01	4.76	3.24	0.68	0.56	44.69
ARITH. STD. DEV.	:	8.4	22.29	0.69	0.86	2.94	0.63	1.10	50.52
GEOM. MEAN	:	3.7	22.33	3.96	4.69	2.42	0.52	0.27	17.34
1ST QUARTILE	:	1.5	14.90	3.51	4.24	1.60	0.29	0.10	33.80
2ND QUARTILE	:	4.0	23.50	3.91	4.46	2.45	0.50	0.23	55.40
3RD QUARTILE	:	9.6	37.00	4.37	4.94	4.05	0.94	0.62	80.60
VOL. WGT. MEAN	:	0	25.65	3.8	1.62	2.66	0.50	0.34	41.50
MISSING VALUES	:	0	38	60	39	40	66	80	60
CHLORIDE MG/L			MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	:	453	453	453	453	453	453	453	453
MAXIMUM	:	2.40	2.700	4.745	1.620	11.720	301.00	301.00	301.00
MINIMUM	:	0.01	0.000	0.000	0.000	0.000	0.70	0.70	0.70
ARITH. MEAN	:	0.27	0.106	0.092	0.107	0.673	66.08	66.08	66.08
ARITH. STD. DEV.	:	0.31	0.218	0.348	0.169	0.980	47.50	47.50	47.50
GEOM. MEAN	:	0.17	0.060	0.047	0.086	0.422	51.30	51.30	51.30
1ST QUARTILE	:	0.09	0.015	0.020	0.025	0.216	33.80	33.80	33.80
2ND QUARTILE	:	0.17	0.045	0.035	0.055	0.436	55.40	55.40	55.40
3RD QUARTILE	:	0.30	0.115	0.075	0.115	0.786	80.60	80.60	80.60
VOL. WGT. MEAN	:	0.16	0.066	0.053	0.066	0.421	63.10	63.10	63.10
MISSING VALUES	:	40	65	63	62	32	80	80	80

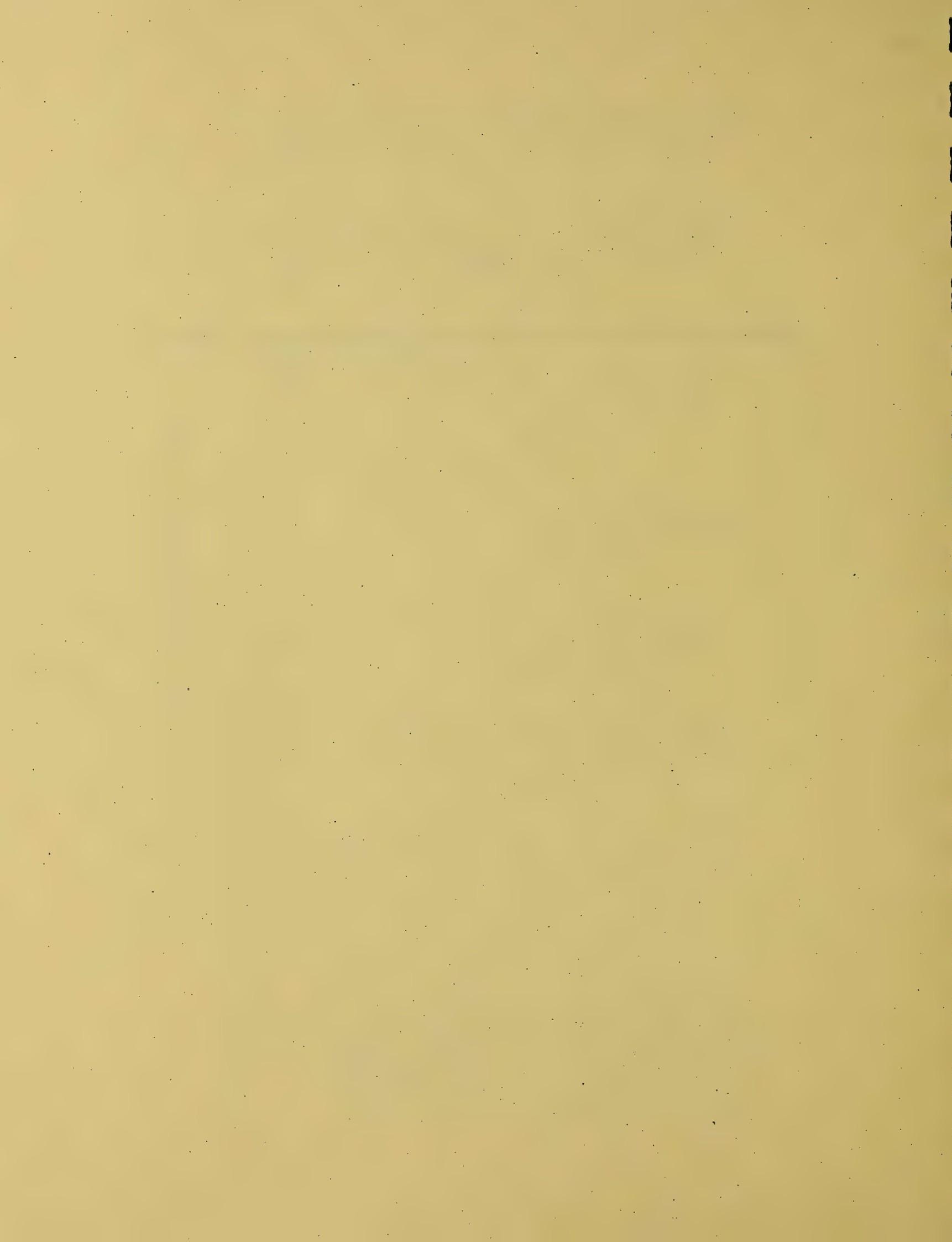
ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: 2

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L	FREEH+ LAB UG/L
# OF SAMPLES	48	48	48	48	48	48	48	48
MAXIMUM	32.6	191.00	8.31	6.77	2.89	2.89	1.71	1.71
MINIMUM	0.0	5.25	3.69	0.45	0.08	0.08	0.00	0.00
ARITH. MEAN	5.5	40.57	4.30	2.88	0.75	0.75	0.24	0.24
ARITH. STD. DEV.	7.5	30.66	0.72	1.74	0.53	0.53	0.40	0.40
GEOM. MEAN	2.6	32.08	4.26	2.35	0.58	0.58	0.19	0.19
1ST QUARTILE	0.6	21.00	3.98	1.55	0.40	0.40	0.05	0.05
2ND QUARTILE	1.8	35.50	4.12	2.25	0.66	0.66	0.10	0.10
3RD QUARTILE	7.0	54.00	4.40	3.80	1.02	1.02	0.22	0.22
VOL. WGT. MEAN	29.78	29.78	4.8	2.32	0.46	0.46	0.15	0.15
MISSING VALUES	0	6	10	3	3	3	8	8
	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L		
# OF SAMPLES	48	48	48	48	48	48	48	48
MAXIMUM	1.44	0.360	0.544	0.435	1.510	574.00	206.49	206.49
MINIMUM	0.00	0.000	0.000	0.000	0.000	1.00	0.00	0.00
ARITH. MEAN	0.31	0.043	0.045	0.089	0.331	106.12	76.06	76.06
ARITH. STD. DEV.	0.30	0.077	0.091	0.112	0.296	91.89	45.71	45.71
GEOM. MEAN	0.29	0.067	0.072	0.103	0.238	78.11	49.86	49.86
1ST QUARTILE	0.13	0.005	0.005	0.015	0.162	61.70	39.81	39.81
2ND QUARTILE	0.23	0.015	0.020	0.060	0.230	88.20	75.36	75.36
3RD QUARTILE	0.40	0.040	0.045	0.095	0.428	135.00	104.71	104.71
VOL. WGT. MEAN	0.23	0.029	0.030	0.099	0.250	94.24	52.07	52.07
MISSING VALUES	3	7	7	3	3	13	13	10

PART V

SUMMARY STATISTICS OF PRECIPITATION DEPOSITION BY STATION



ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: LONGWOODS AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	113	113	113	113	113
MAXIMUM	:	52.2	155.48	45.50	9.25	8.125
MINIMUM	:	0.4	0.63	0.14	0.05	0.000
ARITH. MEAN	:	9.9	27.71	4.87	3.55	0.664
ARITH. STD. DEV.	:	9.6	31.12	5.28	6.11	1.123
GEOM. MEAN	:	6.6	16.14	3.01	1.67	1.06
1ST QUARTILE	:	3.7	7.35	1.47	0.68	0.56
2ND QUARTILE	:	6.2	15.54	3.05	1.39	0.260
3RD QUARTILE	:	13.0	35.52	6.30	4.03	0.770
VOL. WGT. MEAN	:	0	27.57	4.84	3.51	0.699
MISSING VALUES	:	0	1	1	2	1
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES	:	113	113	113	113	113
MAXIMUM	:	10.416	4.606	21.756	52225.60	3587.71
MINIMUM	:	0.000	0.000	0.116	22.82	0.10
ARITH. MEAN	:	0.624	0.552	3.918	674.87	419.89
ARITH. STD. DEV.	:	1.168	0.696	4.610	745.94	497.78
GEOM. MEAN	:	0.351	0.419	2.222	405.24	149.43
1ST QUARTILE	:	0.190	0.152	1.008	208.20	75.71
2ND QUARTILE	:	0.345	0.336	2.265	471.80	303.94
3RD QUARTILE	:	0.672	0.686	4.646	873.00	605.47
VOL. WGT. MEAN	:	0.628	0.616	3.899	635.18	401.92
MISSING VALUES	:	2	1	2	6	8

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: MELBOURNE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	49	49	49	49	49	49
MAXIMUM	56.0	94.71	14.94	39.12	7.55	1.936
MINIMUM	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	7.4	19.02	4.13	2.55	1.25	0.333
ARITH. STD. DEV.	9.6	19.40	3.46	6.04	1.25	0.446
GEOM. MEAN	3.9	11.43	2.94	1.32	0.93	0.264
1ST QUARTILE	1.8	5.76	1.48	0.51	0.50	0.072
2ND QUARTILE	4.8	11.20	2.40	1.07	0.84	0.150
3RD QUARTILE	7.4	28.38	6.15	2.36	1.74	0.400
VOL. WGT. MEAN	20.11	4.37	2.70	1.32	0.434	12
MISSING VALUES	0	4	4	4	8	8
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	49	49	49	49	49	49
MAXIMUM	10.439	3.003	9.480	2536.80	1170.01	
MINIMUM	0.000	0.000	0.000	0.00	0.00	
ARITH. MEAN	0.504	0.488	2.765	592.09	362.00	
ARITH. STD. DEV.	1.596	0.572	2.225	507.01	318.45	
GEOM. MEAN	0.306	0.421	2.104	313.57	140.60	
1ST QUARTILE	0.100	0.168	1.200	171.78	93.37	
2ND QUARTILE	0.204	0.350	2.035	440.72	274.90	
3RD QUARTILE	0.370	0.528	4.134	896.28	554.55	
VOL. WGT. MEAN	0.549	0.521	2.923	535.25	354.95	
MISSING VALUES	8	8	4	12	8	

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
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STATION: NORTH EASTHOPE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES :	148	148	148	148	148	148
MAXIMUM :	33.6	111.18	15.48	27.30	10.55	8.151
MINIMUM :	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN :	6.9	19.60	3.52	2.45	1.17	0.505
ARITH. STD. DEV. :	7.5	20.92	3.13	3.34	1.37	0.875
GEOM. MEAN :	3.6	10.58	2.23	1.37	0.78	0.298
1ST QUARTILE :	1.4	4.41	1.09	0.49	0.42	0.099
2ND QUARTILE :	3.6	13.28	2.62	1.40	0.83	0.269
3RD QUARTILE :	8.9	25.92	5.27	3.17	1.43	0.563
VOL. WGT. MEAN :	0	18.90	3.38	2.45	1.12	0.506
MISSING VALUES :	9	10	21	10	10	20
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES :	148	148	148	148	148	148
MAXIMUM :	3.186	5.750	13.511	3052.00	2335.91	
MINIMUM :	0.000	0.000	0.000	0.00	0.00	
ARITH. MEAN :	0.326	0.441	3.118	493.51	308.04	
ARITH. STD. DEV. :	0.449	0.686	2.640	566.06	412.16	
GEOM. MEAN :	0.217	0.357	2.130	216.63	51.53	
1ST QUARTILE :	0.088	0.096	1.242	70.76	7.38	
2ND QUARTILE :	0.200	0.245	2.508	265.68	121.95	
3RD QUARTILE :	0.361	0.537	4.446	768.00	481.85	
VOL. WGT. MEAN :	0.316	0.551	3.045	438.11	283.13	
MISSING VALUES :	19	18	7	21	16	

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STATION: WELLESLEY AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	54	54	54	54	54
MAXIMUM	:	32.5	95.44	14.74	17.68	4.94
MINIMUM	:	0.1	0.13	0.02	0.13	1.628
ARITH. MEAN	:	6.3	17.82	3.90	0.00	0.000
ARITH. STD. DEV.	:	6.8	18.03	3.47	2.27	0.419
GEOM. MEAN	:	3.1	9.31	2.15	2.84	0.415
1ST QUARTILE	:	1.2	4.75	1.12	1.28	0.281
2ND QUARTILE	:	3.6	9.46	2.99	0.69	0.098
3RD QUARTILE	:	9.8	29.79	6.69	1.29	0.280
VOL. WGT. MEAN	:	16.91	3.70	1.97	0.98	0.570
MISSING VALUES	:	0	3	8	3	8
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	54	54	54	54	54
MAXIMUM	:	6.745	1.869	26.220	2343.60	1846.98
MINIMUM	:	0.000	0.000	0.044	2.45	0.03
ARITH. MEAN	:	0.311	0.399	3.913	435.16	267.42
ARITH. STD. DEV.	:	0.978	0.389	4.402	518.63	370.12
GEOM. MEAN	:	0.129	0.292	2.187	179.48	39.27
1ST QUARTILE	:	0.048	0.155	1.032	63.71	7.73
2ND QUARTILE	:	0.124	0.286	2.477	213.44	61.70
3RD QUARTILE	:	0.224	0.504	5.092	652.05	477.77
VOL. WGT. MEAN	:	0.286	0.379	3.778	377.34	253.30
MISSING VALUES	:	8	8	2	8	3

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STATION: EGBERT AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	89	89	89	89	89
MAXIMUM	50.0	77.50	13.18	13.53	6.00
MINIMUM	0.0	0.00	0.00	0.00	2.550
ARITH. MEAN	3.9	11.00	2.28	0.98	0.000
ARITH. STD. DEV.	7.0	15.53	2.74	1.88	0.138
GEOM. MEAN	2.0	4.57	1.17	0.53	0.326
1ST QUARTILE	0.4	1.54	0.48	0.20	0.109
2ND QUARTILE	1.4	4.10	1.11	0.42	0.42
3RD QUARTILE	4.2	15.23	3.14	1.14	0.026
VOL. WGT. MEAN	0	10.36	2.14	1.09	0.064
MISSING VALUES		22	22	22	0.135
					0.169
					0.169
					27
	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2
# OF SAMPLES	89	89	89	89	89
MAXIMUM	1.370	2.750	10.800	1984.06	1990.29
MINIMUM	0.000	0.000	0.000	3.56	0.00
ARITH. MEAN	0.134	0.281	1.635	342.18	244.10
ARITH. STD. DEV.	0.236	0.391	2.403	431.52	385.68
GEOM. MEAN	0.086	0.196	0.666	176.15	69.89
1ST QUARTILE	0.026	0.077	0.187	78.00	34.87
2ND QUARTILE	0.053	0.168	0.553	164.98	86.68
3RD QUARTILE	0.126	0.371	1.936	416.85	295.93
VOL. WGT. MEAN	0.144	0.273	1.623	283.54	215.71
MISSING VALUES	26	26	18	31	31

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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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STATION: DORSET AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	204	204	204	204	204
MAXIMUM	:	41.6	110.70	9.92	4.86	2.080
MINIMUM	:	0.0	0.00	0.00	0.00	0.000
ARITH. MEAN	:	5.1	13.03	2.81	1.00	0.159
ARITH. STD. DEV.	:	6.6	17.33	3.13	1.57	0.85
GEOM. MEAN	:	2.4	5.60	1.34	0.54	0.42
1ST QUARTILE	:	0.5	2.12	0.51	0.14	0.012
2ND QUARTILE	:	2.5	6.30	1.59	0.42	0.064
3RD QUARTILE	:	7.0	17.92	4.05	1.06	0.173
VOL. WGT. MEAN	:	0	12.41	2.69	1.09	0.202
MISSING VALUES	:	0	37	38	34	53
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	204	204	204	204	204
MAXIMUM	:	2.460	2.342	9.842	3024.00	2144.69
MINIMUM	:	0.000	0.000	0.000	10.60	0.12
ARITH. MEAN	:	0.251	0.302	1.722	475.04	286.97
ARITH. STD. DEV.	:	0.369	0.399	2.270	529.94	376.73
GEOM. MEAN	:	0.154	0.224	0.706	259.04	101.26
1ST QUARTILE	:	0.052	0.057	0.178	116.48	36.81
2ND QUARTILE	:	0.119	0.165	0.775	280.96	160.43
3RD QUARTILE	:	0.297	0.390	2.016	634.92	405.65
VOL. WGT. MEAN	:	0.234	0.320	1.739	382.51	249.31
MISSING VALUES	:	52	51	32	65	53

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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: NITHGROVE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	57	57	57	57	57	57
MAXIMUM	30.4	77.16	16.53	7.25	8.36	1.617
MINIMUM	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	5.3	12.49	3.35	1.22	0.96	0.185
ARITH. STD. DEV.	6.3	14.49	3.45	1.63	1.59	0.309
GEOM. MEAN	2.8	6.22	1.72	0.69	0.55	0.181
1ST QUARTILE	0.4	1.89	0.46	0.17	0.19	0.004
2ND QUARTILE	2.8	7.26	2.30	0.45	0.49	0.056
3RD QUARTILE	8.2	18.96	6.08	1.82	1.08	0.171
VOL. WGT. MEAN	13.10	3.51	1.34	1.03	0.242	
MISSING VALUES	0	9	17	9	17	
	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES	57	57	57	57	57	57
MAXIMUM	1.216	2.200	8.784	1451.80	1135.87	
MINIMUM	0.000	0.000	0.000	0.00	0.00	
ARITH. MEAN	0.285	0.347	2.050	386.94	255.43	
ARITH. STD. DEV.	0.244	0.391	2.347	387.70	277.87	
GEOM. MEAN	0.224	0.270	1.019	183.65	85.20	
1ST QUARTILE	0.080	0.088	0.142	93.20	34.23	
2ND QUARTILE	0.243	0.249	1.052	271.44	160.38	
3RD QUARTILE	0.405	0.438	3.618	617.58	440.80	
VOL. WGT. MEAN	0.260	0.343	2.187	368.84	252.89	
MISSING VALUES	0	17	9	14	12	

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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
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STATION: BALSAM LAKE AEROCHM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	41	41	41	41	41
MAXIMUM	:	35.0	96.39	19.43	6.73	4.820
MINIMUM	:	0.0	0.00	0.00	0.00	0.000
ARITH. MEAN	:	6.4	15.75	3.67	0.75	0.302
ARITH. STD. DEV.	:	7.4	19.23	4.23	3.88	1.16
GEOM. MEAN	:	2.7	6.74	1.82	0.90	0.43
1ST QUARTILE	:	1.1	2.07	0.78	0.26	0.024
2ND QUARTILE	:	3.4	8.93	2.03	0.77	0.064
3RD QUARTILE	:	9.2	21.08	6.14	1.45	0.154
VOL. WGT. MEAN	:	15.41	3.60	2.09	0.79	0.432
MISSING VALUES	:	0	3	5	3	5
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	41	41	41	41	41
MAXIMUM	:	0.918	4.361	17.248	1995.00	1637.07
MINIMUM	:	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN	:	0.111	0.279	2.383	452.57	290.38
ARITH. STD. DEV.	:	0.198	0.716	3.672	477.09	368.40
GEOM. MEAN	:	0.114	0.255	1.050	219.58	76.06
1ST QUARTILE	:	0.012	0.000	0.303	135.60	42.90
2ND QUARTILE	:	0.045	0.084	1.058	277.68	170.63
3RD QUARTILE	:	0.124	0.228	2.322	575.58	334.03
VOL. WGT. MEAN	:	0.184	0.614	2.370	398.32	262.99
MISSING VALUES	:	5	5	3	7	6

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STATION: RAVEN LAKE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	200	200	200	200	200
MAXIMUM	: 32.4	100.43	17.42	22.36	9.05	5.460
MINIMUM	: 0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	: 4.9	15.06	3.06	1.58	0.84	0.229
ARITH. STD. DEV.	: 6.2	18.31	3.32	2.77	1.20	0.552
GEOM. MEAN	: 2.5	6.65	1.67	0.84	0.49	0.197
1ST QUARTILE	: 0.5	2.00	0.75	0.28	0.24	0.015
2ND QUARTILE	: 2.5	8.48	1.96	0.61	0.48	0.072
3RD QUARTILE	: 7.2	19.76	3.96	1.73	0.92	0.189
VOL. WGT. MEAN	: 0	13.80	2.79	1.59	0.79	0.308
MISSING VALUES		54	54	57	53	56
 FREEH+ LAB UG/M**2						
# OF SAMPLES	:	200	200	200	200	200
MAXIMUM	: 7.308	4.615	39.440	2569.32	1780.51	1780.51
MINIMUM	: 0.000	0.000	0.000	0.00	0.06	0.06
ARITH. MEAN	: 0.203	0.284	2.179	452.94	291.18	291.18
ARITH. STD. DEV.	: 0.622	0.537	4.046	508.27	364.51	364.51
GEOM. MEAN	: 0.146	0.264	0.834	217.63	83.29	83.29
1ST QUARTILE	: 0.038	0.062	0.259	89.54	24.38	24.38
2ND QUARTILE	: 0.107	0.135	1.072	288.80	146.93	146.93
3RD QUARTILE	: 0.190	0.297	2.254	601.56	428.82	428.82
VOL. WGT. MEAN	: 0.231	0.370	2.141	399.08	266.75	266.75
MISSING VALUES		56	43	60	53	53

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 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: CHARLESTON LAKE AEROCHEM SITE NO.1

		EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	127	127	127	127	127	127
MAXIMUM	:	58.1	173.04	18.14	4.83	13.05	1.176
MINIMUM	:	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	:	8.1	21.13	3.86	1.07	0.98	0.206
ARITH. STD. DEV.	:	9.0	25.55	3.34	1.09	1.76	0.223
GEOM. MEAN	:	4.9	12.25	2.62	0.77	0.58	0.208
1ST QUARTILE	:	2.3	5.43	1.51	0.27	0.20	0.048
2ND QUARTILE	:	4.7	13.56	2.93	0.72	0.45	0.134
3RD QUARTILE	:	11.3	25.94	5.20	1.56	0.90	0.300
VOL. WGT. MEAN	:	20.74	3.84	1.31	1.14	0.258	0.258
MISSING VALUES	:	0	4	3	2	3	5
		POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	ACIDITY GRAN UG/M**2
# OF SAMPLES	:	127	127	127	127	127	127
MAXIMUM	:	5.810	7.553	23.654	3822.00	2548.82	2548.82
MINIMUM	:	0.000	0.000	0.000	0.00	0.00	0.00
ARITH. MEAN	:	0.237	0.376	2.537	638.26	425.84	425.84
ARITH. STD. DEV.	:	0.683	0.916	2.831	699.41	468.23	468.23
GEOM. MEAN	:	0.168	0.275	1.563	348.83	194.25	194.25
1ST QUARTILE	:	0.038	0.036	0.854	161.60	94.65	94.65
2ND QUARTILE	:	0.129	0.118	1.901	400.74	281.68	281.68
3RD QUARTILE	:	0.210	0.360	3.226	777.40	575.15	575.15
VOL. WGT. MEAN	:	0.292	0.538	2.558	631.84	415.27	415.27
MISSING VALUES	:	4	4	0	7	5	7

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 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: RAILTON AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	37	37	37	37	37	37
MAXIMUM	35.0	91.64	19.64	28.04	7.48	3.813
MINIMUM	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	8.5	24.62	6.02	4.90	1.85	0.622
ARITH. STD. DEV.	7.2	22.83	4.98	5.77	1.70	0.786
GEOM. MEAN	5.9	14.64	3.66	2.43	1.24	0.444
1ST QUARTILE	2.8	7.98	1.55	0.60	0.55	0.060
2ND QUARTILE	6.3	17.33	4.28	2.81	1.19	0.320
3RD QUARTILE	12.9	35.20	9.62	8.81	2.84	1.050
VOL. WGT. MEAN	24.78	6.05	5.11	1.86	0.762	
MISSING VALUES	0	2	2	2	2	
	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES	37	37	37	3.7	3.7	
MAXIMUM	3.460	7.100	13.198	3550.20	1599.81	
MINIMUM	0.000	0.000	0.000	0.00	0.00	
ARITH. MEAN	0.546	1.164	3.906	703.82	396.11	
ARITH. STD. DEV.	0.642	1.469	3.497	737.93	413.69	
GEOM. MEAN	0.374	0.595	2.727	377.47	136.48	
1ST QUARTILE	0.194	0.225	1.613	181.72	93.42	
2ND QUARTILE	0.321	0.550	2.735	374.93	252.17	
3RD QUARTILE	0.597	1.823	5.034	1013.94	569.29	
VOL. WGT. MEAN	0.548	1.169	4.018	690.93	388.86	
MISSING VALUES	2	2	1	3		

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: WILMER AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M ²	NITRATE MG/M ²	CALCIUM MG/M ²	CHLORIDE MG/M ²	MAGNESIUM MG/M ²
# OF SAMPLES	:	184	184	184	184	184
MAXIMUM	60.4	124.74	15.84	15.68	7.67	3.136
MINIMUM	0.0	0.48	0.00	0.00	0.00	0.000
ARITH. MEAN	5.7	18.47	3.37	0.96	0.78	0.156
ARITH. STD. DEV.	8.0	21.64	3.23	1.62	1.19	0.316
GEOM. MEAN	2.3	10.47	2.08	0.69	0.43	0.156
1ST QUARTILE	0.6	4.80	0.97	0.22	0.19	0.020
2ND QUARTILE	2.5	11.31	2.26	0.59	0.41	0.084
3RD QUARTILE	7.6	24.24	5.11	1.10	0.92	0.196
VOL. WGT. MEAN	0	13.81	2.57	0.91	0.63	0.166
MISSING VALUES	53	53	62	52	52	62
 FREEH+ LAB						
	POTASSIUM MG/M ²	SODIUM MG/M ²	AMMONIUM MG/M ²	ACIDITY GRAN UG/M ²		
# OF SAMPLES	:	184	184	184	184	184
MAXIMUM	2.600	3.762	1.2896	4138.20	2457.96	184
MINIMUM	0.000	0.000	0.000	30.40	0.39	
ARITH. MEAN	0.196	0.272	2.056	657.40	418.03	
ARITH. STD. DEV.	0.339	0.535	2.145	732.34	472.98	
GEOM. MEAN	0.152	0.264	1.263	386.08	226.29	
1ST QUARTILE	0.030	0.022	0.529	175.76	109.65	
2ND QUARTILE	0.090	0.112	1.450	353.84	226.27	
3RD QUARTILE	0.240	0.240	2.720	875.70	534.75	
VOL. WGT. MEAN	0.191	0.303	1.588	461.37	299.12	
MISSING VALUES	61	61	48	64	60	

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: GOWGANDA AEROCHM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	59	59	59	59	59
MAXIMUM	:	55.1	63.00	7.20	2.87	0.604
MINIMUM	:	0.0	0.43	0.02	0.00	0.000
ARITH. MEAN	:	4.2	8.10	1.51	0.61	0.108
ARITH. STD. DEV.	:	8.4	13.43	1.80	0.66	0.130
GEOM. MEAN	:	1.4	3.27	0.59	0.43	0.104
1ST QUARTILE	:	0.2	0.96	0.19	0.18	0.022
2ND QUARTILE	:	1.2	3.42	0.80	0.44	0.072
3RD QUARTILE	:	3.6	7.51	1.96	0.66	0.143
VOL. WGT. MEAN	:	6.64	1.24	0.63	0.70	0.152
MISSING VALUES	:	0	16	16	16	20
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	59	59	59	59	59
MAXIMUM	:	1.368	6.702	6.251	1632.00	407.58
MINIMUM	:	0.055	0.000	0.000	3.99	1.82
ARITH. MEAN	:	0.327	0.500	0.819	327.97	124.52
ARITH. STD. DEV.	:	0.322	1.044	1.340	394.62	118.54
GEOM. MEAN	:	0.224	0.295	0.427	159.84	63.27
1ST QUARTILE	:	0.117	0.110	0.019	87.78	22.39
2ND QUARTILE	:	0.258	0.225	0.326	205.20	86.18
3RD QUARTILE	:	0.306	0.588	0.878	490.06	164.88
VOL. WGT. MEAN	:	0.236	0.528	0.751	216.47	126.50
MISSING VALUES	:	22	20	15	26	31

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: HIGH FALLS AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	60	60	60	60	60
MAXIMUM	:	37.6	90.24	12.90	8.65	1.703
MINIMUM	:	0.0	0.00	0.00	0.00	0.000
ARITH. MEAN	:	4.3	11.18	2.72	1.32	0.206
ARITH. STD. DEV.	:	7.0	17.81	2.89	2.05	0.62
GEOM. MEAN	:	2.1	4.48	1.43	0.64	0.44
1ST QUARTILE	:	0.0	1.70	0.58	0.15	0.008
2ND QUARTILE	:	1.3	5.29	1.62	0.51	0.33
3RD QUARTILE	:	4.6	12.42	3.68	1.26	0.83
VOL. WGT. MEAN	:	0	10.97	2.61	1.85	0.357
MISSING VALUES	:	0	16	17	18	15
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	60	60	60	60	60
MAXIMUM	:	0.752	1.358	13.085	2252.24	1496.88
MINIMUM	:	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN	:	0.212	0.347	1.942	376.96	206.37
ARITH. STD. DEV.	:	0.205	0.351	3.022	454.63	298.79
GEOM. MEAN	:	0.137	0.257	0.823	193.32	78.65
1ST QUARTILE	:	0.055	0.095	0.196	106.00	34.67
2ND QUARTILE	:	0.121	0.204	0.989	224.71	106.19
3RD QUARTILE	:	0.319	0.536	1.968	444.00	196.90
VOL. WGT. MEAN	:	0.199	0.397	1.981	323.14	189.82
MISSING VALUES	:	0	18	19	22	19

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: FERNBERG AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	156	156	156	156	156
MAXIMUM	:	40.6	52.52	12.52	4.06	2.332
MINIMUM	:	0.0	0.00	0.00	0.00	0.000
ARITH. MEAN	:	4.1	6.12	1.49	0.39	0.186
ARITH. STD. DEV.	:	6.2	9.73	1.93	0.63	0.348
GEOM. MEAN	:	1.5	2.74	0.81	0.25	0.148
1ST QUARTILE	:	0.4	1.02	0.33	0.08	0.016
2ND QUARTILE	:	1.2	2.84	0.92	0.18	0.092
3RD QUARTILE	:	5.4	6.05	1.87	0.51	0.182
VOL. WGT. MEAN	:	0	4.80	1.17	0.34	0.202
MISSING VALUES	:	0	58	56	58	56
	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	156	156	156	156	156
MAXIMUM	:	2.626	2.030	36.360	1054.00	760.38
MINIMUM	:	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN	:	0.229	0.222	1.830	168.61	46.33
ARITH. STD. DEV.	:	0.384	0.345	4.075	204.23	103.99
GEOM. MEAN	:	0.134	0.181	0.705	78.96	8.87
1ST QUARTILE	:	0.033	0.039	0.168	30.78	1.75
2ND QUARTILE	:	0.099	0.092	0.685	89.04	13.27
3RD QUARTILE	:	0.241	0.288	1.584	216.00	34.00
VOL. WGT. MEAN	:	0.190	0.240	1.623	123.85	36.64
MISSING VALUES	:	0	56	46	65	57

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: QUETICO CENTRE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	29	29	29	29	29
MAXIMUM	:	19.0	16.20	3.63	3.75	0.750
MINIMUM	:	0.0	0.58	0.21	0.00	0.000
ARITH. MEAN	:	5.9	5.83	1.49	1.03	0.170
ARITH. STD. DEV.	:	5.0	3.80	0.89	0.98	0.193
GEOM. MEAN	:	3.0	4.43	1.21	0.75	0.156
1ST QUARTILE	:	2.3	3.11	0.85	0.23	0.023
2ND QUARTILE	:	4.2	5.21	1.31	0.71	0.099
3RD QUARTILE	:	9.6	7.60	2.11	1.51	0.258
VOL. WGT. MEAN	:	0	4.75	1.21	1.07	0.186
MISSING VALUES	:	7	7	7	7	7
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES	:	29	29	29	29	29
MAXIMUM	:	0.625	1.290	5.498	7946.10	287.40
MINIMUM	:	0.000	0.000	0.148	32.78	0.93
ARITH. MEAN	:	0.145	0.270	1.583	670.22	53.98
ARITH. STD. DEV.	:	0.151	0.282	1.432	1719.38	66.52
GEOM. MEAN	:	0.188	0.321	1.058	169.97	22.81
1ST QUARTILE	:	0.056	0.092	0.520	68.54	13.13
2ND QUARTILE	:	0.081	0.192	1.065	144.03	33.99
3RD QUARTILE	:	0.196	0.336	1.934	210.75	72.79
VOL. WGT. MEAN	:	0.163	0.270	1.288	545.41	43.93
MISSING VALUES	:	7	7	7	7	7

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: DAWSON AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	29	29	29	29	29
MAXIMUM	25.0	62.50	7.75	4.10	4.28	0.625
MINIMUM	0.0	1.05	0.50	0.22	0.06	0.000
ARITH. MEAN	5.7	12.40	2.89	1.71	1.18	0.269
ARITH. STD. DEV.	6.5	14.37	1.85	1.21	1.08	0.200
GEOM. MEAN	2.3	7.25	2.25	1.20	0.71	0.209
1ST QUARTILE	0.2	3.78	1.43	0.49	0.20	0.046
2ND QUARTILE	4.2	8.76	2.69	1.31	1.01	0.278
3RD QUARTILE	8.2	16.52	3.52	2.50	1.50	0.408
VOL. WGT. MEAN	8.12	8.12	1.89	1.12	0.78	0.197
MISSING VALUES	0	13	13	13	13	13
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES	:	29	29	29	29	29
MAXIMUM	0.684	3.264	9.504	1825.00	1169.34	
MINIMUM	0.000	0.140	0.110	38.88	1.34	
ARITH. MEAN	0.244	0.870	2.967	335.07	151.76	
ARITH. STD. DEV.	0.165	0.786	2.654	409.78	274.93	
GEOM. MEAN	0.225	0.581	1.411	218.67	46.70	
1ST QUARTILE	0.153	0.168	0.246	154.00	17.79	
2ND QUARTILE	0.213	0.699	2.514	173.92	64.73	
3RD QUARTILE	0.354	1.125	5.040	364.08	153.05	
VOL. WGT. MEAN	0.165	0.570	1.942	219.37	99.36	
MISSING VALUES	0	13	13	13	13	13

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

STATION: PENN. STATE AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	48	48	48	48	48
MAXIMUM	:	32.6	78.10	12.88	4.41	7.28
MINIMUM	:	0.0	0.00	0.00	0.00	0.000
ARITH. MEAN	:	5.5	13.53	2.68	0.67	1.02
ARITH. STD. DEV.	:	7.5	18.15	2.91	0.91	1.58
GEOM. MEAN	:	2.6	6.06	1.64	0.52	0.69
1ST QUARTILE	:	0.6	2.70	0.75	0.07	0.16
2ND QUARTILE	:	1.8	6.40	1.80	0.38	0.46
3RD QUARTILE	:	7.0	16.48	3.68	0.76	0.97
VOL. WGT. MEAN	:	14.17	2.81	0.91	1.37	0.178
MISSING VALUES	:	0	3	8	3	7
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	48	48	48	48	48
MAXIMUM	:	0.770	4.524	8.750	6084.40	1356.51
MINIMUM	:	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN	:	0.124	0.444	1.454	683.10	348.99
ARITH. STD. DEV.	:	0.180	0.943	1.892	1062.38	363.80
GEOM. MEAN	:	0.191	0.263	0.750	235.74	117.38
1ST QUARTILE	:	0.000	0.033	0.242	114.60	80.94
2ND QUARTILE	:	0.054	0.112	0.828	370.80	252.32
3RD QUARTILE	:	0.141	0.285	1.757	736.76	518.92
VOL. WGT. MEAN	:	0.181	0.604	1.526	574.64	317.49
MISSING VALUES	:	7	3	3	13	10

PART VI

SUMMARY STATISTICS OF PRECIPITATION DEPOSITION BY REGION

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

REGION: CE

		EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	550	550	550	550	550	550
MAXIMUM	:	41.6	110.70	19.43	22.36	9.05	5.460
MINIMUM	:	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	:	5.2	13.92	3.01	1.29	0.81	0.195
ARITH. STD. DEV.	:	6.6	17.67	3.33	2.32	1.18	0.462
GEOM. MEAN	:	2.5	6.14	1.55	0.67	0.48	0.177
1ST QUARTILE	:	0.6	2.12	0.62	0.19	0.19	0.012
2ND QUARTILE	:	2.5	7.40	1.85	0.53	0.45	0.064
3RD QUARTILE	:	7.5	19.26	4.05	1.32	0.94	0.171
VOL. WGT. MEAN	:	0	13.38	2.89	1.38	0.82	0.259
MISSING VALUES	:	0	106	107	140	102	138
		POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	550	550	550	550	550	550
MAXIMUM	:	7.308	4.615	39.440	6084.40	2144.69	2144.69
MINIMUM	:	0.000	0.000	0.000	0.00	0.00	0.00
ARITH. MEAN	:	0.213	0.312	1.941	474.11	291.00	291.00
ARITH. STD. DEV.	:	0.447	0.556	3.103	578.48	361.63	361.63
GEOM. MEAN	:	0.156	0.248	0.807	229.06	91.78	91.78
1ST QUARTILE	:	0.037	0.060	0.204	102.00	36.14	36.14
2ND QUARTILE	:	0.105	0.152	0.915	283.36	160.56	160.56
3RD QUARTILE	:	0.250	0.336	2.200	616.00	410.44	410.44
VOL. WGT. MEAN	:	0.230	0.379	1.957	405.83	263.14	263.14
MISSING VALUES	:	137	136	90	159	134	134

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

REGION: NE

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	119	119	119	119	119
MAXIMUM	55.1	90.24	12.90	8.65	8.78	1.703
MINIMUM	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	4.2	9.66	2.11	0.99	0.70	0.159
ARITH. STD. DEV.	7.8	15.87	2.48	1.59	1.04	0.275
GEOM. MEAN	1.7	3.83	0.92	0.53	0.45	0.148
1ST QUARTILE	0.2	1.27	0.36	0.17	0.17	0.014
2ND QUARTILE	1.2	4.15	1.12	0.46	0.38	0.072
3RD QUARTILE	4.2	10.08	3.21	0.90	0.92	0.184
VOL. WGT. MEAN	8.64	1.87	1.18	0.66	0.248	
MISSING VALUES	0	32	33	39	32	38
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	ACIDITY GRAN UG/M**2
# OF SAMPLES	:	119	119	119	119	119
MAXIMUM	1.368	6.702	13.085	2252.24	1496.88	
MINIMUM	0.000	0.000	0.000	0.00	0.00	0.00
ARITH. MEAN	0.266	0.420	1.387	354.19	173.16	
ARITH. STD. DEV.	0.273	0.771	2.413	428.48	245.70	
GEOM. MEAN	0.172	0.275	0.595	176.97	72.00	
1ST QUARTILE	0.084	0.110	0.052	87.92	33.11	
2ND QUARTILE	0.185	0.217	0.588	218.50	93.15	
3RD QUARTILE	0.319	0.536	1.585	490.06	196.90	
VOL. WGT. MEAN	0.219	0.459	1.335	266.04	160.62	
MISSING VALUES	0	40	38	48	50	

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

REGION: NW

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	214	214	214	214	214
MAXIMUM	:	40.6	62.50	12.52	16.22	4.28
MINIMUM	:	0.0	0.00	0.00	0.00	2.332
ARITH. MEAN	:	4.6	6.81	1.65	1.14	0.000
ARITH. STD. DEV.	:	6.2	9.95	1.84	1.88	0.49
GEOM. MEAN	:	1.8	3.32	0.97	0.70	0.193
1ST QUARTILE	:	0.4	1.50	0.50	0.20	0.315
2ND QUARTILE	:	2.1	3.75	0.99	0.60	0.155
3RD QUARTILE	:	7.0	7.23	2.13	1.32	0.023
VOL. WGT. MEAN	:	0	5.20	1.26	1.06	0.023
MISSING VALUES	:	0	78	78	78	0.100
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	:	214	214	214	214	214
MAXIMUM	:	2.626	3.264	36.360	7946.10	1169.34
MINIMUM	:	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN	:	0.217	0.305	1.917	274.80	59.87
ARITH. STD. DEV.	:	0.338	0.462	3.681	767.78	135.93
GEOM. MEAN	:	0.150	0.227	0.807	102.11	12.54
1ST QUARTILE	:	0.040	0.047	0.252	45.98	3.68
2ND QUARTILE	:	0.105	0.133	0.828	115.50	18.51
3RD QUARTILE	:	0.270	0.360	1.934	232.14	52.98
VOL. WGT. MEAN	:	0.183	0.295	1.600	200.15	46.01
MISSING VALUES	:	76	76	66	85	77

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

REGION: SE

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	:	348	348	348	348	348
MAXIMUM	60.4	173.04	19.64	28.04	13.05	3.813
MINIMUM	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	6.9	20.35	3.90	1.50	1.00	0.236
ARITH. STD. DEV.	8.4	23.61	3.63	2.74	1.55	0.405
GEOM. MEAN	3.4	11.66	2.46	0.85	0.55	0.202
1ST QUARTILE	1.4	5.67	1.18	0.28	0.20	0.035
2ND QUARTILE	3.6	12.72	2.69	0.72	0.51	0.110
3RD QUARTILE	9.6	25.94	5.43	1.58	1.03	0.276
VOL. WGT. MEAN		17.48	3.40	1.57	0.95	0.268
MISSING VALUES	0	59	58	68	56	67
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					FREEH+ LAB	
					ACIDITY GRAN UG/M**2	UG/M**2
					AMMONIUM	348
					MG/M**2	4138.20
# OF SAMPLES	:	348	348	348	348	348
MAXIMUM	5.810	7.553	23.654	23.654	2548.82	0.00
MINIMUM	0.000	0.000	0.000	0.000	0.00	0.00
ARITH. MEAN	0.257	0.429	2.483	2.483	418.77	418.77
ARITH. STD. DEV.	0.564	0.916	2.702	2.702	464.18	464.18
GEOM. MEAN	0.178	0.297	1.517	1.517	368.27	199.11
1ST QUARTILE	0.043	0.036	0.734	0.734	175.76	105.71
2ND QUARTILE	0.126	0.133	1.734	1.734	387.24	259.05
3RD QUARTILE	0.265	0.360	3.184	3.184	875.70	560.42
VOL. WGT. MEAN		0.272	0.508	2.196	547.22	350.74
MISSING VALUES	67	67	67	67	74	68

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

REGION: SW		EQUIVALENT PREC. DEPTH MM		SULFATE MG/M**2		NITRATE MG/M**2		CALCIUM MG/M**2		CHLORIDE MG/M**2		MAGNESIUM MG/M**2	
# OF SAMPLES	:	453	453	453	453	453	453	453	453	453	453	453	453
MAXIMUM	:	56.0	155.48	31.65	45.50	10.55	10.55	0.00	0.00	0.00	0.00	0.00	0.151
MINIMUM	:	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	:	7.0	20.12	3.80	2.52	1.18	1.18	0.463	0.463	0.463	0.463	0.463	0.463
ARITH. STD. DEV.	:	8.4	23.64	3.94	4.52	1.31	1.31	0.839	0.839	0.839	0.839	0.839	0.839
GEOM. MEAN	:	3.7	10.28	2.24	1.23	0.76	0.76	0.258	0.258	0.258	0.258	0.258	0.258
1ST QUARTILE	:	1.5	4.40	1.06	0.47	0.40	0.40	0.081	0.081	0.081	0.081	0.081	0.081
2ND QUARTILE	:	4.0	12.23	2.49	1.17	0.83	0.83	0.216	0.216	0.216	0.216	0.216	0.216
3RD QUARTILE	:	9.6	27.36	5.50	2.79	1.48	1.48	0.528	0.528	0.528	0.528	0.528	0.528
VOL. WGT. MEAN	:	19.63	3.70	2.48	1.15	0.487	0.487	0.487	0.487	0.487	0.487	0.487	0.487
MISSING VALUES	:	0	39	40	66	40	40	65	65	65	65	65	65
POTASSIUM MG/M**2		SODIUM MG/M**2		AMMONIUM MG/M**2		ACIDITY GRAN UG/M**2		FREEH+ LAB UG/M**2		ACIDITY GRAN UG/M**2		FREEH+ LAB UG/M**2	
# OF SAMPLES	:	453	453	453	453	453	453	453	453	453	453	453	453
MAXIMUM	:	10.439	5.750	26.220	5225.60	5225.60	5225.60	3587.71	3587.71	3587.71	3587.71	3587.71	3587.71
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00
ARITH. MEAN	:	0.397	0.447	3.141	523.62	523.62	523.62	328.76	328.76	328.76	328.76	328.76	328.76
ARITH. STD. DEV.	:	0.935	0.616	3.538	605.52	605.52	605.52	424.83	424.83	424.83	424.83	424.83	424.83
GEOM. MEAN	:	0.209	0.337	1.774	253.61	253.61	253.61	77.44	77.44	77.44	77.44	77.44	77.44
1ST QUARTILE	:	0.068	0.111	0.840	102.60	102.60	102.60	28.58	28.58	28.58	28.58	28.58	28.58
2ND QUARTILE	:	0.194	0.270	2.000	300.40	300.40	300.40	167.27	167.27	167.27	167.27	167.27	167.27
3RD QUARTILE	:	0.390	0.511	4.295	750.00	750.00	750.00	492.35	492.35	492.35	492.35	492.35	492.35
VOL. WGT. MEAN	:	0.393	0.491	3.113	466.30	466.30	466.30	306.62	306.62	306.62	306.62	306.62	306.62
MISSING VALUES	:	63	62	32	80	80	80	60	60	60	60	60	60

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF DEPOSITION

REGION: 2

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	48	48	48	48	48	48
MAXIMUM	32.6	78.10	12.88	4.41	7.28	0.676
MINIMUM	0.0	0.00	0.00	0.00	0.00	0.000
ARITH. MEAN	5.5	13.53	2.68	0.67	1.02	0.119
ARITH. STD. DEV.	7.5	18.15	2.91	0.91	1.58	0.173
GEOM. MEAN	2.6	6.06	1.64	0.52	0.69	0.180
1ST QUARTILE	0.6	2.70	0.75	0.07	0.16	0.000
2ND QUARTILE	1.8	6.40	1.80	0.38	0.46	0.038
3RD QUARTILE	7.0	16.48	3.68	0.76	0.97	0.144
VOL. WGT. MEAN	14.17	2.81	0.91	1.37	0.178	0.13
MISSING VALUES	0	3	8	3	7	10
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	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB	UG/M**2
# OF SAMPLES	48	48	48	48	48	48
MAXIMUM	0.770	4.524	8.750	6084.40	1356.51	0.00
MINIMUM	0.000	0.000	0.000	0.00	0.00	0.00
ARITH. MEAN	0.124	0.444	1.454	683.10	348.99	363.80
ARITH. STD. DEV.	0.180	0.943	1.892	1062.38	117.38	235.74
GEOM. MEAN	0.191	0.263	0.750	114.60	80.94	80.94
1ST QUARTILE	0.000	0.033	0.242	370.80	252.32	252.32
2ND QUARTILE	0.054	0.112	0.828	736.76	518.92	518.92
3RD QUARTILE	0.141	0.285	1.757	574.64	317.49	317.49
VOL. WGT. MEAN	0.181	0.604	1.526	13	10	10
MISSING VALUES	7	3	7	3	13	13

PART VII

SUMMARY STATISTICS OF AIR CONCENTRATION BY STATION

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: LONGWOODS SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	365	365	365	365	365	365
MAXIMUM	74.10	37.53	1.97	3.67	9.07	3.84
MINIMUM	0.00	0.00	0.01	0.00	0.00	0.06
ARITH. MEAN	9.41	5.34	0.32	0.60	1.72	0.92
ARITH. STD. DEV.	9.31	5.44	0.32	0.55	1.44	0.66
GEOM. MEAN	5.81	3.74	0.20	0.39	1.19	0.69
1ST QUARTILE	3.32	2.12	0.09	0.20	0.68	0.42
2ND QUARTILE	7.28	3.40	0.21	0.46	1.34	0.77
3RD QUARTILE	12.70	6.24	0.43	0.80	2.37	1.24
MISSING VALUES	16	12	18	13	13	18

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: WELLESLEY SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	:	157	157	157	157	157
MAXIMUM	:	67.06	16.51	1.22	7.42	5.32
MINIMUM	:	0.00	0.13	0.01	0.00	0.05
ARITH. MEAN	:	9.91	4.42	0.19	1.04	1.24
ARITH. STD. DEV.	:	10.22	2.89	0.21	0.91	1.52
GEOM. MEAN	:	6.07	3.62	0.11	0.68	0.98
1ST QUARTILE	:	2.68	2.56	0.06	0.39	0.86
2ND QUARTILE	:	7.56	3.55	0.10	0.87	1.60
3RD QUARTILE	:	13.09	5.62	0.23	1.38	2.92
MISSING VALUES	:	0	0	0	0	1.68

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: EGBERT SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	150	150	150	150	150	150
MAXIMUM	35.44	17.60	1.28	3.50	4.91	3.79
MINIMUM	0.00	0.00	0.01	0.00	0.11	0.03
ARITH. MEAN	5.72	3.59	0.19	0.65	1.36	0.84
ARITH. STD. DEV.	6.64	2.80	0.20	0.72	1.13	0.81
GEOM. MEAN	3.08	2.83	0.13	0.29	0.97	0.48
1ST QUARTILE	1.07	1.79	0.08	0.09	0.54	0.20
2ND QUARTILE	2.76	2.70	0.12	0.39	0.93	0.56
3RD QUARTILE	8.75	4.36	0.24	0.93	1.87	1.29
MISSING VALUES	2	1	1	1	1	1

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: DORSET SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M ³	SULFATE UG/M ³	NITRIC UG/M ³	NITRATE UG/M ³	AMMONIUM UG/M ³	TOTAL NITRATE UG/M ³
# OF SAMPLES	356	356	356	356	356	356
MAXIMUM	27.16	28.78	1.25	2.19	5.50	3.02
MINIMUM	0.00	0.00	0.01	0.00	0.02	0.01
ARITH. MEAN	4.23	3.38	0.24	0.12	0.78	0.37
ARITH. STD. DEV.	5.34	4.00	0.24	0.26	0.87	0.40
GEOM. MEAN	2.17	2.15	0.15	0.09	0.46	0.22
1ST QUARTILE	0.64	1.21	0.07	0.01	0.21	0.09
2ND QUARTILE	2.21	1.99	0.14	0.03	0.43	0.22
3RD QUARTILE	5.56	3.99	0.34	0.11	1.07	0.53
MISSING VALUES	33	33	32	33	33	32

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: BALSAM LAKE SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	144	144	144	144	144	144
MAXIMUM	37.58	14.11	1.33	2.60	3.78	2.98
MINIMUM	0.00	0.20	0.01	0.00	0.02	0.02
ARITH. MEAN	6.25	3.18	0.25	0.34	0.98	0.59
ARITH. STD. DEV.	7.12	2.50	0.23	0.48	0.88	0.63
GEOM. MEAN	3.56	2.48	0.16	0.14	0.64	0.32
1ST QUARTILE	1.42	1.68	0.08	0.03	0.30	0.14
2ND QUARTILE	3.17	2.33	0.16	0.10	0.63	0.32
3RD QUARTILE	7.92	4.04	0.36	0.46	1.36	0.82
MISSING VALUES	0	0	0	0	0	0

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: CHARLESTON LAKE SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	358	358	358	358	358	358
MAXIMUM	7543.33	2645.00	237.86	243.57	797.86	481.43
MINIMUM	0.00	0.00	0.01	0.00	0.00	0.02
ARITH. MEAN	28.17	11.31	1.00	1.04	3.48	2.03
ARITH. STD. DEV.	409.56	142.28	12.67	13.12	42.87	25.65
GEOM. MEAN	2.53	2.29	0.21	0.14	0.65	0.40
1ST QUARTILE	0.76	1.25	0.11	0.07	0.33	0.21
2ND QUARTILE	2.24	2.07	0.20	0.13	0.62	0.36
3RD QUARTILE	7.08	3.98	0.40	0.25	1.42	0.69
MISSING VALUES	20	14	7	14	13	7

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: GOWGANDA SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	156	156	156	156	156	156
MAXIMUM	60.73	15.10	1.33	1.11	3.58	1.88
MINIMUM	0.00	0.00	0.01	0.00	0.01	0.03
ARITH. MEAN	5.93	2.67	0.21	0.06	0.56	0.27
ARITH. STD. DEV.	10.20	2.45	0.23	0.12	0.57	0.31
GEOM. MEAN	2.19	2.07	0.12	0.05	0.39	0.17
1ST QUARTILE	0.60	1.40	0.06	0.01	0.23	0.08
2ND QUARTILE	1.38	1.94	0.11	0.03	0.36	0.15
3RD QUARTILE	5.99	2.92	0.27	0.05	0.67	0.35
MISSING VALUES	1	1	1	1	2	1

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: HIGH FALLS SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	156	156	156	156	156	156
MAXIMUM	73.50	15.65	0.98	1.68	3.79	2.18
MINIMUM	0.00	0.12	0.01	0.00	0.00	0.01
ARITH. MEAN	8.44	2.96	0.20	0.12	0.67	0.32
ARITH. STD. DEV.	14.53	2.56	0.21	0.22	0.72	0.37
GEOM. MEAN	3.13	2.22	0.11	0.08	0.44	0.18
1ST QUARTILE	0.92	1.46	0.05	0.01	0.21	0.07
2ND QUARTILE	2.69	2.17	0.11	0.04	0.37	0.16
3RD QUARTILE	8.52	3.62	0.27	0.11	0.94	0.44
MISSING VALUES	0	0	0	0	0	0

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: FERNBERG SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	:	339	339	339	339	339
MAXIMUM	:	12.92	15.25	0.94	1.20	1.43
MINIMUM	:	0.00	0.00	0.00	0.00	0.01
ARITH. MEAN	:	1.02	1.61	0.09	0.44	0.19
ARITH. STD. DEV.	:	1.46	1.83	0.10	0.17	0.23
GEOM. MEAN	:	0.89	1.12	0.06	0.09	0.29
1ST QUARTILE	:	0.00	0.73	0.03	0.01	0.18
2ND QUARTILE	:	0.53	1.12	0.06	0.03	0.27
3RD QUARTILE	:	1.37	1.87	0.12	0.08	0.48
MISSING VALUES	:	19	21	6	20	7

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

STATION: PENN. STATE SEQUENTIAL SITE NO.1

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	:	156	156	156	156	156
MAXIMUM	:	177.29	18.43	1.84	1.93	5.07
MINIMUM	:	0.00	0.00	0.00	0.00	0.01
ARITH. MEAN	:	15.87	4.86	0.39	0.21	1.17
ARITH. STD. DEV.	:	22.80	3.99	0.34	0.27	0.97
GEOM. MEAN	:	8.22	3.60	0.26	0.14	0.79
1ST QUARTILE	:	3.58	2.46	0.17	0.05	0.51
2ND QUARTILE	:	8.61	3.48	0.27	0.13	0.85
3RD QUARTILE	:	18.26	5.51	0.49	0.23	1.50
MISSING VALUES	:		2	2	2	2

PART VIII

SUMMARY STATISTICS OF AIR CONCENTRATION BY REGION

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: CE

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	656	656	656	656	656	656
MAXIMUM	177.29	28.78	1.84	2.60	5.50	3.37
MINIMUM	0.00	0.00	0.00	0.00	0.00	0.01
ARITH. MEAN	7.59	3.70	0.28	0.19	0.93	0.48
ARITH. STD. DEV.	13.37	3.77	0.27	0.34	0.91	0.51
GEOM. MEAN	3.39	2.53	0.18	0.11	0.57	0.28
1ST QUARTILE	1.18	1.50	0.09	0.02	0.28	0.12
2ND QUARTILE	3.67	2.50	0.20	0.06	0.61	0.30
3RD QUARTILE	8.52	4.52	0.39	0.21	1.24	0.64
MISSING VALUES	35	35	34	35	34	34

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: NE

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	312	312	312	312	312	312
MAXIMUM	73.50	15.65	1.33	1.68	3.79	2.18
MINIMUM	0.00	0.00	0.01	0.00	0.00	0.01
ARITH. MEAN	7.19	2.81	0.20	0.09	0.62	0.30
ARITH. STD. DEV.	12.62	2.51	0.22	0.18	0.65	0.34
GEOM. MEAN	2.62	2.14	0.12	0.06	0.41	0.17
1ST QUARTILE	0.69	1.42	0.05	0.01	0.21	0.08
2ND QUARTILE	2.04	2.02	0.11	0.03	0.36	0.15
3RD QUARTILE	7.68	3.32	0.27	0.08	0.85	0.38
MISSING VALUES	1	1	1	1	1	1

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: NW

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES	339	339	339	339	339	339
MAXIMUM	12.92	15.25	0.94	1.20	3.82	1.43
MINIMUM	0.00	0.00	0.00	0.00	0.00	0.01
ARITH. MEAN	1.02	1.61	0.09	0.09	0.44	0.19
ARITH. STD. DEV.	1.46	1.83	0.10	0.17	0.52	0.23
GEOM. MEAN	0.89	1.12	0.06	0.09	0.29	0.11
1ST QUARTILE	0.00	0.73	0.03	0.01	0.18	0.04
2ND QUARTILE	0.53	1.12	0.06	0.03	0.27	0.10
3RD QUARTILE	1.37	1.87	0.12	0.08	0.48	0.23
MISSING VALUES	1.19	21	6	20	21	7

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: SE

	SULFUR DIOXIDE UG/M ₃	SULFATE UG/M ₃	NITRIC UG/M ₃	NITRATE UG/M ₃	AMMONIUM UG/M ₃	TOTAL NITRATE UG/M ₃
# OF SAMPLES	7543.33	2645.00	237.86	358	358	358
MAXIMUM	0.00	0.00	0.01	243.57	797.86	481.43
MINIMUM	28.17	11.31	1.00	0.00	0.00	0.02
ARITH. MEAN	409.56	142.28	12.67	13.12	3.48	2.03
ARITH. STD. DEV.	2.53	2.29	0.21	0.14	42.87	25.65
GEOM. MEAN	0.76	1.25	0.11	0.07	0.65	0.40
1ST QUARTILE	0.72	1.07	0.11	0.07	0.33	0.21
2ND QUARTILE	2.24	2.07	0.20	0.13	0.62	0.36
3RD QUARTILE	7.08	3.98	0.40	0.25	1.42	0.69
MISSING VALUES	20	14	7	14	1.3	7

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 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: SW

	SULFUR DIOXIDE UG/M3	SULFATE UG/M3	NITRIC UG/M3	NITRATE UG/M3	AMMONIUM UG/M3	TOTAL NITRATE UG/M3
# OF SAMPLES :	672	672	672	672	672	672
MAXIMUM :	74.10	37.53	1.97	5.23	9.07	5.32
MINIMUM :	0.00	0.00	0.01	0.00	0.00	0.03
ARITH. MEAN :	8.70	4.72	0.26	0.72	1.72	0.98
ARITH. STD. DEV. :	9.16	4.49	0.28	0.72	1.42	0.80
GEOM. MEAN :	5.09	3.49	0.16	0.42	1.21	0.67
1ST QUARTILE :	2.23	2.12	0.08	0.20	0.68	0.38
2ND QUARTILE :	6.65	3.30	0.15	0.50	1.30	0.78
3RD QUARTILE :	11.80	5.73	0.34	0.96	2.45	1.38
MISSING VALUES :	18	13	19	14	19	19

ONTARIO MINISTRY OF ENVIRONMENT & ENERGY
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 1990 SUMMARY STATISTICS OF CONCENTRATION

REGION: 2

	SULFUR DIOXIDE UG/M ₃	SULFATE UG/M ₃	NITRIC UG/M ₃	NITRATE UG/M ₃	AMMONIUM UG/M ₃	TOTAL NITRATE UG/M ₃
# OF SAMPLES :	156	156	156	156	156	156
MAXIMUM :	177.29	18.43	1.84	1.93	5.07	3.37
MINIMUM :	0.00	0.00	0.00	0.00	0.00	0.01
ARITH. MEAN :	15.87	4.86	0.39	0.21	1.17	0.60
ARITH. STD. DEV. :	22.80	3.99	0.34	0.27	0.97	0.54
GEOM. MEAN :	8.22	3.60	0.26	0.14	0.79	0.41
1ST QUARTILE :	3.58	2.46	0.17	0.05	0.51	0.27
2ND QUARTILE :	8.61	3.48	0.27	0.13	0.85	0.43
3RD QUARTILE :	18.26	5.51	0.49	0.23	1.50	0.74
MISSING VALUES :	2	2	2	2	2	2

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